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ABSTRACT

This analytical survey of research on early school leaving was done under the auspices of the Center for Studies in Education and Development at the Graduate School of Education of Harvard University. The purpose of the study is to offer an introduction to research on the antecedents and consequences of early school leaving for planners, practitioners, and researchers who are concerned with education. "Antecedents" of early leaving comprise those factors outside as well as inside the school that seem to be related to departure from school; "consequences" of early leaving deal with the extent to which post-school characteristics of individuals differ according to their level of schooling. The major point of reference in the survey is the Third World; relevant materials from developed countries such as the United States are included primarily to broaden the horizon of possible research designs, methods, and hypotheses that might be considered in formulating new studies in the Third World. The authors carefully note that the concept of early school leaving will vary by system and setting; therefore, what constitutes "early" leaving will have to be viewed in reference to the particular country where the study is conducted. A major portion of this bulletin is devoted to the research abstracts which detail time and location of the study, objectives, methods employed, and the findings. (Author/SES)

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Antecedents and consequences of early school leaving

Prepared for the International Bureau of Education
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PREFACE

While this issue of the bulletin maintains the established policy of treating a specific theme—in this case, the causes and consequences of early school leaving—it differs from previous numbers in that it is entirely devoted to an analytical survey of relevant *research activities*. The aim of the compilers, Professors Russell Beirn, David C. Kinsey and Noel F. McGinn of the Center for Studies in Education at the Graduate School of Education, Harvard University, was to provide an introduction to the subject for planners, practitioners and researchers concerned with education. The authors first describe the purpose, scope and organization of the bibliography, and then go on to comment on certain important patterns and problems in the studies surveyed and in particular: the definition and recognition of the problem in different settings; the incidence and treatment of the related factors; and the research designs and methodology employed. The opinions expressed are those of the authors and are not necessarily those of Unesco.

In addition to the aim formulated above, the IBE considers this work to be a valuable follow-up to the 32nd session of the International Conference on Education (Geneva, September 1970) and to an earlier issue of the Bulletin (vol. 43, no. 173, 1970), both of which had as their main theme the problem of wastage in education. The present survey, however, goes much further in two major respects than anything published earlier: first, it deals not only with the antecedents of early school leaving but also examines in detail the *consequences*, and, secondly, it systematically identifies the methods and variables used in each study and gives a comprehensive report on the findings.

Inevitably, the material is drawn largely from English language sources and, in particular, from the USA, where there has been much more research in this field and from where the relevant materials are more plentiful and accessible. Nonetheless, the major point of reference in the survey is the Third World and therefore it is to be hoped that future studies and research projects concerned with the problem in developing countries will have much to gain from an understanding of the research designs, methods and findings presented in this work. It is also to be hoped that it will stimulate others, in different parts of the globe, to undertake similar surveys, and thereby further contribute to a truly world-wide information tool designed to help improve the efficiency of education.

It only remains for the editors to congratulate the authors for undertaking this extensive survey and to express our thanks to them for permitting the end-result of their work to be published in this periodical.

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FOREWORD

This analytical survey of research on early school leaving has been done under the auspices of the Center for Studies in Education and Development at the Graduate School of Education of Harvard University. The authors are indebted to the support and advice of their colleagues at the Center. They also wish to thank the many individuals in universities, research centres, ministries, and international agencies in various parts of the world who were so helpful in locating and sending research materials.

I. Introduction

With the rapid expansion of education in the Third World during recent years, the old problem of early school leaving has assumed new proportions and significance. In developed countries, where the increase of school enrolments has occurred over a longer period of time and typically was preceded by economic growth, it has been possible to achieve a relatively high level of expenditure on education that does not jeopardize investments in other sectors. Here the norm is for pupils to obtain at least eight or nine years of education before leaving school and entering the labour market. In developing countries, however, as much as a third of the national budget is often devoted to rapid educational growth; and this represents a drain on scarce resources that compromises other efforts to develop the economy in the short term. The major quantitative result of this educational expansion is a vast majority of pupils who leave school with from one to nine years of schooling. In view of the sacrifice this investment in education involves, it is generally assumed that there is a serious inefficiency in early school leaving and that this is particularly costly for developing countries.

The expansion of primary education may be a response to social demand or the result of a policy of democratization that stresses the right to education and equality of opportunity. But it is also believed that primary schooling will have various developmental effects. For instance, it will produce a new type of citizenry that is functionally literate, is more unified and oriented towards the national state, and operates more effectively in the modern sector. At the secondary level the objective is typically not only selection for higher education but also the production of middle level cadres that can fulfil manpower needs in a developing society. Indeed, the assumption that education can and does perform these functions is often used to justify the relatively high cost that an expanded educational structure represents for a poor country. Those concerned with the discrepancy between high costs and low rates of retention that imply limited goal-achievement, are raising a new set of questions. Why are so many dropping out or not reaching the educational level where the investment is expected to yield results? Can one identify those factors contributing to premature leaving that are subject to correction by policy measures? What in fact is the result and relevance of schooling in terms of the intended changes in skills, social functions or attitudes among those who leave school and enter society? At what educational levels do these changes appear or not appear, and what do they suggest as to where efforts for retention should be focused or the nature of schooling be adjusted to meet goals?

Until recently studies in this area have predominantly been concerned with attrition rates and student flows. However, the increasing pressures for greater efficiency and remedial action underline the need for another focus of research. As has been pointed out in a recent survey of emerging research needs in educational planning, "now there is interest in

extending these inquiries into analyses of causes of wastage, together with the educational, social and economic consequences of various patterns of system performance with respect to retention and completions".[1]

Understandably, more research on these issues has been carried out in the West than in the Third World, and more attention has been given to causes than consequences of premature leaving. Yet the problem clearly is more acute, and has more severe cost implications, in developing countries. In addition, a good case may be made for the parallel, if not prime, importance of studies on the consequences of early school leaving. A well-designed and executed follow-up study of pupils who have left school can give a basis for assessing the relevance or effectiveness of a school system. And, particularly important, it can indicate the relative significance, in personal and social terms, of early leaving at various points in the school system. Grounds are thereby provided for deciding *how much* attention should be given to early leaving as a problem, and *where* in the system priority should be given to analysing and remedying the causes of poor retention.

PURPOSE OF STUDY

As research begins to respond more directly to these needs it is desirable to consider the problems, approaches and content of what has already been done. To this end we have carried out an extensive survey of research on the antecedents and consequences of early school leaving that has been done in various parts of the world during recent years. On the basis of this survey we are presenting an analytical commentary on such research and a sample of the more substantive studies in the form of research abstracts. The abstracts include the objective of the study, the methods employed and the findings.

Our purpose, then, is to offer an introduction to research on the antecedents and consequences of early school leaving for planners, practitioners, and researchers who are concerned with education. For those initiating or designing future research it is hoped that this will help them benefit from the strengths, weaknesses, and suggestions of previous work in the field. The abstracts are given in sufficient detail to enable the researcher to decide if it would be useful to consult the original source. As presented, they may also help him to formulate hypotheses and consider alternative methods for future studies.

SCOPE

The studies surveyed deal with the antecedents and consequences of early leaving from formal primary and secondary schools. In general the concentration has been on selecting studies that analyse processes and relationships between variables rather than merely describing the problem. Calculations of attrition rates or wastage have been excluded, as have been macro-studies of education and development.

The major point of reference in the survey is the Third World. There has been relatively little research done on the issues in these areas; so, in selecting studies, an effort has been made to be as comprehensive as possible in order to give a representative idea of the work being done. On the other hand, relevant materials for the developed countries, and particularly the United States, are much more plentiful and accessible. Here, the criteria for selection have been more rigorous. The emphasis is on significant contributions that are generally based on empirical study and offer theoretical or methodological insights, identify variables, and suggest or test hypotheses. The basic purpose for including such studies is to broaden the horizon of possible research designs, methods and hypotheses that might be considered in formulating new studies in the Third World.

1. Platt, William J. *Research for educational planning: notes on emergent needs.* Paris, Unesco: International Institute for Educational Planning, 1970. p. 26.

TERMS

The concept of early or premature school leaving is often variable from one type of educational system to another, and its definition as well as significance is influenced by the particular settings of different countries. This problem will be discussed in the following section, but it may be noted here that the definition of "early" can be based on two types of norms. It can be determined by a legal norm, such as leaving school before completing a "compulsory" stage of education or before reaching a minimum age. Or it can be based on a socially assumed norm, such as a stage or age that is considered to be desirable to reach before leaving school. Variations on these norms can range from a system where a pupil who completes primary school but is only 12 years old will not be considered an early leaver, to a system where a pupil who passes the minimum school age but does not complete secondary school is seen as leaving early.

It is well to make a distinction between "dropouts" and "leavers". A dropout will be considered here to be one who leaves school before the end of the final year of the stage in which he is enrolled, whether that stage be primary school or a short or long form of secondary schooling. In contrast a leaver will be defined as a graduate of primary or short form of secondary school who does not continue his formal education. In some systems only a limited percentage of primary graduates, for instance, are admitted into the next stage. Consequently the rest become school leavers due to the design of the system, and cannot be considered to be dropouts. Occasionally reference is made to "structural dropouts", or pupils who are directed into short, terminal tracts or schools on the secondary level. This is a particular use of the term dropout, and will appear only in connexion with a few studies. Both dropouts and leavers may re-enter a school of some type, but with few exceptions this falls outside the scope of the studies under consideration.

Because of the diversity of systems and settings, no uniform cross-national definition of early school leaving is possible. For purposes of selecting studies the term "early school leaving" is used to subsume a range of types of dropouts and leavers along the primary-secondary school sequence. It is understood that what constitutes "early" leaving will have to be viewed in reference to the particular country where the study is carried out.

The "antecedents" of early leaving comprise those factors outside as well as inside the school that seem to be related to the departure from school. These factors may have an associative or causative relationship to early leaving and may pertain to voluntary or involuntary reasons for departure. "Consequences" of early leaving deal with the extent to which post-school characteristics of individuals differ according to their level of schooling. Differences in characteristics may be identified as being associated with more or less education, but to be considered ultimately as consequences they must be attributable to school, rather than non-school, influences.

PREVIOUS SURVEYS

In the past decade there have been few surveys of any kind dealing with literature on early school leaving. The main coverage on an international scale that includes summaries of works on this problem appeared in the *Bulletin of the International Bureau of Education* in 1969.[1] This issue is devoted to an annotated bibliography of published sources on wastage in primary, secondary and higher education. There is a section on the causes of wastage, including dropouts, but studies on the consequences of leaving are not included. The single paragraph summaries tend to concentrate on the findings or conclusions of the study. A regional survey of literature on educational wastage and school dropouts in Asia was prepared for Unesco in 1966.[2] Here the findings of studies on elementary school wastage are summarized but again consequences are not considered.

1. *Bulletin of the International Bureau of Education* (Geneva), vol. 43, no. 173, 1969.
2. *Bulletin of the Unesco Regional Office for Education in Asia* (Bangkok), vol. 1, no. 2, March 1967.

The only substantive survey to deal with sources on both the causes and consequences of early school leaving covered only the United States and was published in 1964. [1] In this report there is a topical discussion of research findings on different aspects of the high school dropout problem, followed by a bibliography with brief annotations.

Against this background, it will be observed that the structure of the present survey represents a new departure on two counts. It is the first survey on an international scale to include studies on both the causes and consequences of early school leaving. And it is the first to provide substantial abstracts that systematically identify methods and variables used in each study, as well as reporting findings.

SOURCES CONSULTED

In the course of this survey a wide variety of published, and in some cases unpublished, sources have been consulted. These include books, monographs, periodicals, international agency and national government reports, and doctoral dissertations. Some sources selected deal exclusively with the topic, while others report on pertinent empirical research in sections of a more general work. In a few cases a source is included that is not based on a specific research study but contributes a new perspective that is judged to be useful for our purpose. Regrettably some types of sources were not consulted, notably doctoral dissertations in various parts of the world and many local periodicals concerned with education, since they are difficult to obtain.

On the basis of accessibility and potential use in the Third World, the concentration has been on sources written in English, French or Spanish. Within these limits, the coverage has been as comprehensive as possible on recent studies appearing before 1970.

ORGANIZATION

The commentary in the next section reviews the patterns and problems apparent in the research and discusses future needs in the field.

Following this the abstracts of selected research, numbered serially throughout, are presented under two general headings: Part A on "Antecedents" and Part B on "Consequences". If a given study deals with antecedents and consequences, it appears in both sections and a cross-reference is given to the number of the other entry (shown in parentheses). However, the basic information on the study is only given in the entry that corresponds to the study's principal focus.

Within each part the abstracts are grouped according to the geographical area of the study. Thus studies dealing exclusively or primarily with an Asian country are arranged alphabetically under "Asia".

The principal entry for a study includes a key that notes, where relevant, the country or countries, the time period, and the educational levels that are referred to in the work. Then, insofar as is possible, the abstract systematically covers the purpose of the study, the source of the data, the procedure or methods used, and the findings or conclusions.

After reading the commentary there are various ways the abstracts might be used, depending on one's interests or needs. The reader may concentrate on those sources for a specific geographical area; or he might select relevant abstracts on the basis of the key or a perusal of one or more types of subheadings. For instance, he could look at studies dealing specifically with early secondary school leavers or decide if a study is relevant by reading the statements of purpose. The final bibliography of studies surveyed includes the number of the abstract, or abstracts, pertaining to each work.

1. Miller, S. M.; Saleem, B. L.; Bryce, H. *School dropouts: a commentary and annotated bibliography*. Syracuse N.Y., Syracuse University Youth Development Center, 1964.

II. Commentary on research

The following discussion is not intended to be a summary of research findings about early school leaving. Its purpose is rather to describe and comment upon certain important patterns and problems in the studies surveyed. In particular these relate to: (a) the definition and perception of early school leaving in different settings; (b) the incidence and treatment of factors considered as possible antecedents or consequences of early school leaving; and (c) the research designs and methodology employed. In addition, it will suggest some needs and future directions for research in this field.

It is hoped that these observations may be useful in interpreting the research summaries themselves and, most importantly, in developing future studies.

DEFINING THE PROBLEM

A central, if not exactly surprising, finding of this survey of research is that there is no "universal dropout". A discussion of early school leaving between three researchers who have studied the problem in the United States, Western Europe, and Africa or Latin America will concern not one but three quite distinct phenomena.

A uniform, cross-national definition of early school leaving is simply not possible. Who is considered an early leaver and also the significance attached to early leaving both depend upon the educational setting: the structure of the education system and what that system is supposed to achieve. And of course both educational structures and goals vary considerably in the 33 countries considered in this research, countries that are also highly differentiated in regard to political history, culture and economic development. Educational objectives may be looked at along two dimensions. Quantitative objectives can refer to *how much* schooling is considered desirable or mandatory, and for how many. Qualitative goals may deal with questions of what *kind* of schooling and for what *purpose*.

The point at which cessation of schooling becomes "dropping out", and hence a "problem", depends mainly upon the quantitative factor, i.e., it is related to the intended —and the actual—shape of a particular country's educational pyramid. In the United States, which has produced the greatest volume of dropout research, it is considered to be desirable for everyone to receive 12 years' education and the legal minimum school leaving age is generally set at 16. Since all are at least to begin high school, early leavers are almost always students who leave the system somewhere between grades 7 and 12. In many developing countries, on the other hand, where the stress is on achieving universal primary education and where relatively few children reach the secondary level, early leavers are predominantly those who do not finish primary or, in some cases, those who do finish but go no further.

The importance of the early leaving problem and the nature of the concern it evokes are closely related to a country's educational purposes; where major emphasis is placed on education as a national instrument vital to political change or economic development, early leaving tends to be evaluated principally in terms of its impact on these collective goals. The efficiency of the education system looms as an important question especially where resources are short: the existence of large numbers of dropouts means the schools are not working well, and may therefore jeopardize attainment of the general development goal. In these circumstances, the emphasis is on early leavers as an aggregate rather than as individuals and they are often dealt with in statistical terms. Early school leaving takes on a rather different meaning where education is considered above all as a basic right and social good to be distributed to as many members of the society as possible. Here concern is more with loss of individual rights and benefits. It must be stressed, however, that a country's educational goals are almost always a matter of priorities rather than either-or choices such as production function vs. consumption function, or individual vs. social development. For example, certain systems may be concentrating on education for the development of national consciousness, but at the same time have a secondary objective of extending its benefits to all. Objectives may also differ according to educational level. That is, within a single system individual opportunity and benefit may be the primary aim of elementary schooling while secondary and higher education are mainly for training cadres who will contribute to national development.

The conception and importance of early school leaving is also related to the structure of the educational system, or the rules and paths that determine the progress of a student through its various levels. Promotion policies—both within and between cycles—are very influential. In countries where, for instance, promotion from one primary school grade to another is selective rather than automatic, there is a significant incidence of grade repetition which tends to be associated with early leaving. This sort of "built-in dropout" naturally does not generate the same concern as dropping out in an automatic promotion system designed to advance as many children as possible. There also may be different policies with respect to promotion from the primary to the intermediate or secondary levels. Some countries, for example, sharply restrict the number of children who are admitted to post-primary education. Such countries which selectively admit children to intermediate or secondary institutions are less likely to consider children not going on as early leavers than are those "open" systems which allow all children completing the primary cycle to go on if they wish.

Another important structural factor is differentiation of post-primary schooling. In countries like France and Germany, many students are channelled into "terminal tracks", i.e., intermediate or secondary programmes designed to provide limited further education. Once entered, these dead-end programmes are extremely difficult to escape. In much of West Germany, for example, a student in a non-college preparatory programme who wishes access to higher education is obliged to make up an almost prohibitively great number of courses. They thus represent a forced discontinuation of education which is sometimes labelled "structural dropout". It appears to be this type of educational loss that predominates in Western European secondary education rather than the actual leaving of the system altogether that occurs in the United States.

RESEARCH ON ANTECEDENTS OF EARLY SCHOOL LEAVING

VARIABLES EXAMINED AS ANTECEDENTS

What kinds of factors have been examined as possible causes of early school leaving? To what extent do they depend on where the research is carried out? Any classificatory system obviously introduces some degree of bias. However, what has been attempted in Table 1 is both a fairly objective breakdown of variables into three major classes and

an indication both of their incidence in the antecedent research as a whole and of their relative incidence in studies from developing as compared to developed countries.

In the studies as a whole, the variables dealt with most frequently are those which we have labelled school-related. Next most common are family and socio-economic factors; individual characteristics are third. This general order of frequency applies to both developing and developed areas, but a more detailed breakdown within the major variable categories suggests somewhat different frequency patterns in the two groups of countries.

Table 1. Frequency of variables examined as antecedents of early school leaving

Variables	Frequency			
	Developed countries	Developing countries	Total	Per cent
INDIVIDUAL				
Sex	11	10	21	
Health	3	12	15	
Intelligence	12	1	13	
Age	5	8	13	
Personality factors	11	2	13	
Race ethnicity	3	4	7	
Religion	2		2	
Other		1	1	
	47	38	85	
			85	
				18
FAMILY-SOCIAL				
General family factors				
Parental attitudes/aspirations	11	16	27	
Family size/structure	11	1	12	
Education of parents	4	7	11	
Relationship between individual and family	6	4	10	
Family stability	3	4	7	
Family "demands" (unspecified)	1	2	3	
Study conditions at home		3	3	
Language spoken at home	1	1	2	
Family friends	2		2	
Other		1	1	
	39	39	78	
Family social and economic factors				
Class (SES/father's occupation/caste)	19	11	30	
Income/need for additional funds	8	13	21	
Need for child's labour	1	10	11	
	28	34	62	
Other social and economic factors				
Urban rural setting	4	11	15	
Peer relations	5	4	9	
Marriage/pregnancy	3	4	7	
Job opportunities	1	5	6	
Local demographic characteristics	2	3	5	
Other		1	1	
	15	28	43	
			183	
				38

Table 1 (continued)

Variables	Frequency			
	Developed countries	Developing countries	Total	Per cent
SCHOOL				
Experiences in school				
Grade failure/retardation	9	9	18	
Feeling about school	8	6	14	
Attendance record	4	10	14	
Academic achievement record	11	2	13	
Educational values/aspirations	6	6	12	
Extra-curricular participation	10	1	11	
Change of schools	3	7	10	
Distance to school	1	6	7	
Relationship with teachers	5	1	6	
Disciplinary problems	4	1	5	
Age on entering school	2	2	4	
Employment while in school	4		4	
Other	1	3	4	
	68	54	122	
Characteristics of school				
Teacher variables	4	12	16	
Curriculum variables	7	7	14	
Selection and tracking system/limits/ biases	3	6	9	
School costs for pupil	2	7	9	
Facilities (space/materials)	2	7	9	
Type of school ("incomplete"/private/ public/coeducational)	3	5	8	
Status of school/location	5		5	
Teacher-pupil ratio		4	4	
School size	2	1	3	
Expenditure per pupil	1	2	3	
Scheduling		3	3	
Guidance and social services	2	1	3	
Enforcement of attendance		2	2	
Other	2		2	
	33	57	90	
				212
				44

School-related factors. In developing countries, attention to school factors is divided about evenly between the characteristics of the school itself and the individual student's experience in school; in already developed areas, the latter tends to come up rather more often.

In both kinds of countries, school variables that appear with relatively high frequency are: grade failure/retardation, children's feelings about school, educational values and aspirations, and curriculum factors. Only in developed countries is considerable attention given to variables such as the record of academic achievement, extra-curricular participation (which seems to be of special interest in the United States), student relationships with teachers and disciplinary problems. In research on developing areas such variables are dealt with no more than once or twice. On the other hand, per pupil school costs, school facilities, distance the child must travel to school, and "teacher variables" such as teacher training, are all taken into account much more often in developing countries.

Family and social context. The dominant concern within this group of factors is definitely with aspects of the family's socio-economic class or status, such as income, parental occupation and caste. This is true for studies in both the Third World and the United States/Europe.

The next largest sub-groups of possible antecedents common to both are: parental attitudes/aspirations, education of parents and relationships between the dropout and his family.

Antecedent studies in developing nations are more likely to examine the need for child labour, urban or rural settings, and job opportunities as possible correlates of early leaving. The only relatively frequent variable which is practically unique to European and North American research is family size/structure.

Individual characteristics. The single attribute most often examined in this category is sex; it appears as a variable with equal frequency in both groups of countries. Health is considered nearly as often, but it appears essentially in studies on developing countries. Conversely, the two factors with the next greatest incidence for the entire category, i.e., intelligence and personality factors, are found overwhelmingly in work on dropouts in the United States and Europe.

An alternative classification of antecedent variables might divide them according to whether they are measures of internal traits of the individual, or measures of the environment in which the individual lives. The former class of variables is sometimes called psychological, the latter social psychological or sociological. Psychological variables tend to ignore the situation in which the person is found: causation is attributed directly to characteristics of the person independent of the environment.

The social psychological variables include two sub-classes. The first looks at characteristics of the environment as they act on the individual and modify internal states and hence behaviour. The focus is on the interaction between fixed environmental conditions and variable states of the individual. The second class looks at variable environmental factors that influence behaviour with internal characteristics or traits taken as fixed.

Some examples may be in order. When dissatisfaction with school is taken to be a direct cause of dropping out, it is a psychological variable. If a study compared attitudes toward school according to the level of training of teachers in a given school, the measure of the quality of staff would be a social psychological variable of the first class. A study that looked at the effect of level of training of teachers among students with different levels of intelligence, or from different tribes or different social class levels, would be using teacher training as a social psychological variable of the second class.

COMMENTS ON ANTECEDENTS RESEARCH

A later section will comment on the methodological characteristics of research on both the antecedents and consequences of early leaving. Here the intent is to discuss the choice, definition and analysis of antecedent variables.

As the brief outline of variable distribution suggests, what is studied is, at least partially, a function of research context. This is influenced by local differences in cultural attitudes and in educational and socio-economic structures or stages of development. It is not surprising that distance between home and school, and child labour, are both important in developing countries where a large proportion of the population live in thinly settled rural areas and where children are needed and expected to participate in the labour force.

Nor is it unexpected that in Europe and North America, where the school systems can accommodate most children, factors like space and facilities have not the same significance as they do for systems still struggling to provide places for all. Certain variables may also be considered just because data on them, rather than on others, are available. School records may contain information about fathers' occupations, tribal affiliation, age, family size and so on. The information is used because it is there.

Too many studies treat variables as if they operated alone in a vacuum. As will be discussed in the section on methodology, this is largely due to the absence of a conceptual-analytical framework that would relate variables to each other in the context of an

explanatory model. In the one-dimensional studies that stem from inadequate conceptual designs it is difficult, if not impossible, to identify the kinds and degrees of relationships between variables. Much more attention needs to be given to ways in which variables interact with one another.

Many of the studies which were surveyed would have been strengthened by giving more thought to what may be involved in certain variables that on the surface appear to be quite simple, but in fact may reflect other variables that produce the phenomenon. For example, low socio-economic status is a frequent correlate of early leaving. It can be considered as a *direct* measure of a family's inability to support attendance at school, to pay fees, purchase books, etc. Or it may be viewed as a *proxy* variable, i.e., an indirect measure of other factors that are a more immediate or direct cause of leaving school. Used in such a sense socio-economic status may represent a syndrome of values and attitudes that do not favour remaining in school.

As an illustration of this problem, consider the studies that show a relationship between family size and dropping out. Does this relationship occur because large families have less economic means to educate their children, or does family size reflect patterns of religious or cultural attitudes that do not favour education, or does membership in a large family mean that the individual receives less intellectual stimulation from parents and is therefore more likely to do badly in school? Again, failure in school might be a direct determinant of dropping out in systems in which failing children are not allowed to continue, or it could be a proxy for negative attitudes formed towards oneself and the school that eventually lead to early leaving. Or take the variable of age. Dropouts are often over-age for their grade when they leave, and this may be a direct cause of leaving, particularly in systems that have an age limit for promotion. But it also is typically a proxy for a series of experiences that lead to retardation and early leaving. Being over-aged may also merely mean that a person started school late because there were no available school facilities or places when he was of the normal entering age.

The great majority of studies on early leavers have treated the individual as the object of analysis and locus of the problem. That is, major attention has been given to the identification of those traits and states of students, and variables affecting these, that are associated with the act of early leaving. This attention is consistent with a usually implicit assumption that dropping out or early leaving is a voluntary and individual act. This assumption is also reflected in the fact that remedial action is generally designed to change individuals, either directly or through modifications in their environment. Too little research has been done on structural characteristics of schools and even less on the active role of the school in discouraging children from continuing. For instance, in some cases where there are overcrowded schools there is an active policy of reducing enrolments by failing a fixed percentage of the children at the end of each school period. Some systems have selection procedures that filter students for admission into the next level of the system. The school may "cause" early leavers by denying some otherwise eligible students the right to continue on the basis of characteristics such as age or sex. In such instances the school system chooses not to help all of its students develop their abilities and talents, and early leaving rates could be taken as a direct measure of the exclusiveness of the system.

Finally, it is possible that there may be significant differences between students who "drop out" of the system in the middle of a school cycle as opposed to those who leave at its completion. Similarly, there may be differences between those who leave school during the middle of a school year as opposed to those who finish the school year but do not reappear for the beginning of the next academic year. No significant research has been done on these questions.

A concern for such discrepancies in research is not only important for a more accurate understanding of the process of early school leaving: their correction is necessary if research is to make an effective contribution to the decision-maker involved with designing remedial action for the problem. Thus the researcher must consider variables related to early leaving that are subject to change by means available to the decision-maker, and not just those, such as socio-economic status, that are beyond the range of his immediate influence. There should also be an indication of the relative importance of different manipulative variables

as contributors to early leaving in a given setting or level of schooling. For instance, would action directed towards feasible changes in individuals or modifications in schools have more potential for improving retention? Of the contributing variables that may be effected by action, which are more crucial and should be given prior attention?

RESEARCH ON CONSEQUENCES OF EARLY SCHOOL LEAVING

VARIABLES EXAMINED AS CONSEQUENCES

In considering the variables that have been investigated as possible consequences of early school leaving we are dealing with about half as many items as appeared in Table 1 for antecedents. This difference in number of variables is consistent with the fact that there has been much more research on why early leaving occurs than on the implications or importance of the phenomenon. A categorization of such variables is again somewhat arbitrary. In Table 2 we have chosen to group them according to skills and knowledge associated with different levels of schooling, psychological states, and types of actual activity or behaviour. This classification is intended to bring attention to the kinds of potential outcomes of early leaving that would be of concern to decision-makers. It should be apparent, however, that a variable in any given group may be to some degree related to possible results listed under another category.

From Table 2 it is clear that the bulk of the research surveyed has been concerned with measures pertaining to post-school activities and behaviour. Less attention has been directed to attitudes and values related to education, and almost no consideration has been given to post-school measures of skills and knowledge attained or sustained with different levels of schooling.

Activities and behaviour. Economic measures related to achievement in the labour market clearly receive the most attention as a dependent, or outcome, variable of schooling. Occupational status and mobility, income, job performance and other work-related variables are examined more than twice as frequently as indicators of social and political behaviour. And the degree to which school skills are used or further training is sought and obtained is given the least attention. This general pattern holds for research in both developed and developing countries, but interestingly the relative emphasis on such variables is less strong for the latter.

The concentration on economic variables is no doubt due to the value societies place on economic growth and the strong belief that education has something to do with it. This belief is tested by research on individual differences in economic performance as it might be related to education. It is also the case that economic variables are generally easier to measure than many of those in the other categories. Income is a whole number, employment is "either-or", jobs can be scaled according to prestige or importance; and all of these fit into nice statistical analysis.

Attitudes and values. The second largest category of research variables deals with changes in the attitudes and values of persons as a function of education. Here the emphasis is on a comparison of individuals with different levels of educational attainment according to their values and perceptions, or their aspirations for the future, rather than their satisfaction with the present. Often aspirations or satisfactions are linked to the economic realm, so the importance of economic factors is even more dominant in the research than it appeared above.

It is noteworthy that while more consideration has been given to variables of economic behaviour in developed countries, more concern is shown with values and perceptions in the research on developing countries. The effect of education on attitudinal and value change is an important contribution expected of education, but its assessment is hindered by the state of research means and capabilities to measure accurately these variables.

Table 2. Frequency of variables examined as consequences of early school leaving

Variables	Frequency			
	Developed countries	Developing countries	Total	Per cent
SKILLS AND KNOWLEDGE				
Literacy		3	3	
Knowledge of political/social issues	1		1	
	1	3	4	
			4	
				2
ATTITUDES AND VALUES				
Aspirations				
Occupational	5	7	12	
Further education for self	5	2	7	
Education for children	2	2	4	
Other (migration, marriage, etc.)	3	3	6	
	15	14	29	
Satisfaction				
With job	6	2	8	
With education	2	1	3	
With life		1	1	
	8	4	12	
Values/perceptions				
Political views/identity	2	7	9	
Modernism/achievement orientation/ fatalism	3	4	7	
Perception of self and options	2	3	5	
Level of materialism	1	3	4	
Ideal family size		2	2	
Other (values of education, innovation, etc.)	4	2	6	
	12	21	33	
			74	
				38
ACTIVITIES AND BEHAVIOUR				
Educational/intellectual				
Further education/training	7	6	13	
Reading/media use	3	2	5	
	10	8	18	
Social/political				
Family or marital relationships/fertility	5	5	10	
Social/political participation	5	2	7	
Migration	1	6	7	
Delinquency	2	2	4	
Use of leisure time	3		3	
Friendship patterns	2		2	
	18	15	33	
Economic				
Occupational sector/level	15	6	21	
Employment/unemployment	7	8	15	
Earnings/income	7	5	12	
Job performance/learning	6		6	
Occupational mobility/advancement	5	1	6	
Occupational instability	4	1	5	
Other	3		3	
	47	21	68	
			119	
				60

Skills and knowledge. Given the basic educational aim of developing intellectual skills and relevant knowledge, it is surprising that the attainment and maintenance of these capabilities associated with different levels of education have not been given more than passing attention in follow-up studies. As will be illustrated below, in all countries the assessment of skills and knowledge is typically left to teachers and examinations within the school system rather than through an evaluation of what the individual actually has and retains when he has left school.

COMMENTS ON CONSEQUENCES RESEARCH

As in the studies of antecedents, it is striking that the individual is taken as both the unit and object of analysis in almost all the research. One could conceive of a study that examined the effects of different rates of early school leaving on general labour market conditions, or a research on the ecological distribution of early leavers according to urban settlements. But instead the research has concentrated on what happens to individual persons who have passed through varying degrees of contact with schools.

The societal conception of the function of education of course has a pronounced influence on the major variables investigated in the follow-up study. For example, education in the Soviet Union is clearly seen as (among other things) training people for service in the economy. So Russian researchers have made a specialty of investigating relationships between schooling and skill levels and productivity in the industrial sector. In the United States emphasis is placed more on consequences to the individual as a participant in the labour market. Here research tends to focus on employment, income, personal adjustment, life style—all variables indicating outcomes to the person from education. In those developing countries caught up in the surging rhythms of modernization, however, the effects of education are typically looked at in the context of moving persons from traditional to modern attitudes and behavioural practices.

Implicit in the research on consequences of education is the assumption that differing amounts of education result in differing amounts of learning. The research appears to assume that differences in outcomes (e.g., employment) attributable to differences in level of education completed are a function of graduates knowing more, having different skills or attitudes, or somehow being different in their person, than dropouts. In fact, however, none of the research that relates education to social or economic achievement looks to see if differences in grade-levels of schooling are in fact accompanied by differences in knowledge, abilities or attitudes. This is not to say that there are not studies that relate levels of education and attitudes, knowledge and abilities. But a correlation of education and attitudes and a separate association of education and job success, are not proof that education results in changes in attitudes (abilities, knowledge) which in turn lead to success in employment (or social behaviour, etc.).

If studies of the consequences of early leaving are to be used to evaluate education—and that is our recommendation—then it is necessary to be able to show the link between the changes that education makes in persons, and the way society reacts to these changes. As an example of the problem, consider the difficulty in interpreting a reported research finding that early school leaving results in lower economic productivity, as measured by income. Invariably we are not given evidence to help us know whether this is due to the fact: (a) that leaving school early means knowing less, and knowing less means producing less; or (b) that society gives more reward in terms of income to those who have received or completed more education, without regard to their abilities or values.

One of the most pressing needs, then, in research on the consequences of early leaving, and hence of education, is to demonstrate the ways in which education affects individuals and how this impact on persons affects their socio-economic roles in society.

The execution of this kind of research will be much improved by a consideration of the extent to which differences in the "achievements" of persons can be attributed to opportunity. What appear to be differences in the status, capacities or motives of individuals, as reflected in differential rates of income or employment, may in fact be influenced by variations in the demand for labour. For example, it is possible that at one point in the development

of a nation's occupational structure there may be a high demand for secondary school graduates, but little for primary school leavers, while at another time the situation could be the reverse. Obviously in this case the contribution of education to changes in persons is not the major variable.

Research on consequences will also be improved by attention to the existence of "third variables" that are the real causal element explaining a relationship. The correlation between education and social participation, for example, could be not causal but rather a reflection of the fact that persons from the middle class are more likely to obtain education than those from the working class, and also more likely, because of experiences associated with their class membership, to acquire the values that dispose them to certain forms of social participation.

Finally, research on the consequences of leaving school should examine the costs of remaining in school as well as the benefits. A good cost-benefit analysis examines not only direct costs, but also indirect and opportunity costs. In the case of education this means generally income foregone by continued attendance in school. Cost-benefit analyses of the consequences of early leaving appear to have been done essentially in the United States, and are few at that.

There seem to be several basic reasons for the relative paucity of research on what happens to children after they withdraw from school. One explanation is that most research on education is done by people in or oriented to the school system, and this system generally considers its responsibility to the student to terminate when he leaves school. Consequently research tends to focus on the school world, and school variables that affect early leaving, rather than the outside world and the relation of education to the leaver's role in it.

A more cynical explanation argues that few systems do follow-up studies on early leavers because the early leaver is not seen as a problem. Systems may want to control *who* drops out, but early school leaving is taken as given. It may even be seen as a desirable phenomenon that reduces pressure on limited facilities at a higher educational level. This and the above argument are related to comments in the previous section on the assignment of responsibility for leaving the school to the individual instead of to the school.

Finally, there would seem to be little reason for comparing persons on the basis of years of education completed if it were assumed that any education invariably makes an important and linear contribution to individual development and success in life. In fact, this assumption about the value of education is nearly universal, and some unknown proportion of educators see no need to test it out.

Follow-up studies of school leavers with differing amounts of education can, however, serve several important purposes. This type of study provides vital data for a better academic understanding of the process of education and social change. In addition it can intentionally or implicitly, validate notions about the antecedents of early leaving insofar as it shows that individual characteristics related to lower success in employment, for instance, are also those that lead to early leaving. But of particular importance to the administrator or planner are those contributions it can make to decision-making. Three examples may be mentioned.

Studies of the consequences of early leaving can suggest to the decision-maker how much he should be concerned with it as a phenomenon. How much of a problem is it, to society as well as individuals, in what respects and to what extent? For instance, how much is it actually connected with a greater probability of delinquency, political disaffection, reduced incidence or performance in employment?

Such studies can also provide a basis for deciding where in the education system most attention should be given to measures to increase retention. Where are the thresholds in the system which apparently must be reached by the student for there to be significant differences in the social effects of schooling? Is there a difference in these effects if the student leaves after two years of general as opposed to specialized education at the secondary level? This evidence may be used for informing the decision-making process of those responsible for education or it can be conveyed to potential school leavers. In the United States for instance, results of follow-up studies are used to convince students to complete high school.

And of particular importance, this type of study can provide a vital perspective from which to evaluate an education system and its effectiveness in reaching its objectives. If dropouts do not differ in significant ways from those who went further, the schools have failed. Is there a difference in regard to skills and attitudes — and the degree to which they are sustained — in respect to measureable gains in socio-economic functions? Or is the education given relevant to the actual needs and roles of the leaver in society? If not, the question is why and what changes within the range of options available to the decision-maker might bring an improvement. If a central goal of education is an improvement in the quality of productivity of individual lives, and hence national life, it is clear that an evaluation of education should include the relationship between schooling and life in society rather than just focusing on the pupil while he is in the closed environment of the school.

RESEARCH METHODOLOGY

Many of the critical comments in the preceding pages turn upon the research methodology used in the study of early school leavers. This section identifies and discusses some of the major types of methodological problems seen in these studies. The primary intent is to alert the reader to such shortcomings so that the abstracts of research will be read more critically and future research efforts will be more soundly conceived.

In a general sense one can divide the research between studies that describe the phenomenon and those that analyse the process. Research on early school leaving can very legitimately be for purposes of description. Educational administrators and policy makers, for instance, are concerned about the possible scope of the problem of school wastage, and want good data. It is important to know who is leaving school, at what points they are leaving, and something about where they go or what they do when they leave. This can be called descriptive data. However, studies designed to analyse the causes of early leaving and the consequences that can be attributed to it must necessarily differ in methodology from the descriptive reports that predominate in the literature.

A common and serious problem of many studies that purportedly set out to analyse the causes or consequences of early leaving is that they actually end up merely describing the phenomenon. Usually this happens because the design of the study or the quality of the data do not permit anything else. Often the research is able only to collect information on a few variables that cannot be related to each other except through inference; or none of the variables can reasonably be said to be measures of *causal* factors in the process or implications of early leaving. The result is doubly unfortunate because the remaining descriptive data is often of poor quality and, due to rough or incomplete sampling procedures, we are not sure how representative it is even for descriptive purposes.

Analytical studies, then, are all too frequently weak at one or more of the following levels. These are: (a) orientation to a theory or model that suggests hypotheses as to the nature of the process; (b) choice of a research design that is appropriate to the model or purpose; (c) use of sound research techniques (sampling, reliable measures, etc.) required to carry out the design; and (d) analysis and conclusions that are related to the purpose and derived from the data rather than going beyond them.

The need for an analytical study to have a unifying orientation towards theory, or at least hypotheses as to the process, does not require much elaboration. Theories establish boundaries for the causal links between phenomena and describe the nature of these links. The use of hypotheses derived from theory directs attention to specific causal links, encourages the researcher to examine other possible explanations for a relationship, and reduces the likelihood of his being content with associational studies. Theories, or a set of hypotheses, on possible causal relationships will both shape the research design and provide a meaningful framework in which to look at findings. For the researcher concerned with helping the decision-maker, it is important to note that theories and hypotheses should include, and can be built upon, sets of operational variables; that is, variables that can be influenced by the action of educational or other authorities.

The second potential weakness, that of research design, is a major area of difficulty in the studies surveyed. In discussing problems of design some reference will be made to the third and fourth types of weakness in analytical studies, but for a specific consideration of these aspects the reader is referred to standard manuals of methodology and analysis.

The definition of cause-and-effect relationships imposes strict demands upon the researcher. Theoretically the experimental research design is the most completely satisfactory one with which to determine causal relationships. As in scientific experiments, the researcher starts with a similar group of pupils, exposes some to specific "treatments" while being sure that others are not effected by this intervention, and then determines which changes occur in the treated (experimental) group but not in the untreated (control) group. In this way the researcher indentifies which variables represented in treatments apparently cause change, such as dropping out or not dropping out, and which do not have an effect. In such research a number of conditions must be met in order to prove cause-and-effect relationships. [1] The temporal order of events must be established; thus the design has to assure that the events causing change precede the indicators of effect. Other possible causes beyond those being controlled must be eliminated; here theory aids in setting the boundaries, and control measures (e.g., control groups, screening of variables, randomization, counterbalancing, etc.) are used to prevent extraneous causes from producing changes. There must be an empirical demonstration of the relation between the independent variables (treatment) and the dependent variable (effect); hence the controlled empirical experiment. Finally, the relationship between variables must be shown to be constant or invariable: therefore one must be able to repeat the experiment and obtain the same results.

Obviously the experiment is not generally available to the student of early school leaving. Educational policy-makers have neither the time nor the authority to manipulate some of the factors involved in early leaving, or to assign students randomly to one or another experience for the purpose of studying the phenomenon. In view of these constraints the general absence of this type of design in the literature surveyed is not surprising. However, the researcher should be concerned with elements and considerations involved in this research method that might be simulated in other designs to make them more reliable.

In the studies surveyed there are a variety of research designs that range from those that do not use features of the experimental method to others that incorporate an increasingly larger number of these elements. For purposes of simplicity we shall consider four general types. [2] The non-experimental designs deal only with a group of early school leavers, observing their characteristics before and/or after the point of leaving (henceforth designated as X) without referring to a control group of pupils who remained in school beyond that point. The other three types of design do use a control group. However, they all differ from the experimental model in that they do not start with a random selection of pupils and then experimentally treat one group to see how it differs from the untreated control group. They differ from each other in the existence or nature of an attempt to establish that the two groups would have been equivalent had it not been for factors producing or resulting from X as it occurs naturally. The correlational model involves a static comparison of early leavers and a control group, and typically compares them at one time after X without referring to whether their pre-X characteristics were similar or different. The *ex-post facto* design deals with the two groups after X and attempts to equate or match them as they were before X, but does this on the basis of retrospective data. Finally, the longitudinal design directly gathers data on the two groups at various points before and after X, and tries to equate the two groups on the basis of the data collected before X.

The non-experimental approach is a common and particularly inadequate one for the purposes of establishing causation. This design may appear as X O, where X represents the event of early leaving and O stands for the observation or measurement made after the fact of certain characteristics related to early leaving. This is the study where a researcher gathers a group of early leavers, and describes their characteristics. He then makes statements about how the early leavers are different from those who did not leave without

1. Derived from David Kline, "Research methods for educational planning" (in preparation).

2. Much of this discussion is based on ideas generated from: Campbell Donald T.; Stanley, Julian C. *Experimental and quasi-experimental designs for research.* Chicago, Rand McNally and Co., 1963.

actually referring to the characteristics of the latter. Sometimes the data on early leavers pre-dates their departure from school, in which case the design could be represented as: O X. Even if before and after data are gathered, involving an O X O design, the deficiencies are clear. It would be partially useful for descriptive purposes if steps were taken to assure that these pupils were representative of early leavers as a whole, but this is usually not done. However, the basic problem is that we cannot know whether the described characteristics are unique to early leavers since no data are collected on those who did not leave early. Thus there is no basis for saying these factors are causes of early leaving. In the X O model we do not have an idea as to the many other things that could have happened since leaving school (X) and might influence the nature of the data collected later (O).

In a correlational design for studying the causes of early leaving the researcher obtains data on both early leavers and those who remained in school, and attempts to find some difference between the two groups in regard to the independent variables. He may use a correlation statistic or a group difference statistic, but he is attempting to associate the condition of early leaving with some particular trait, attitude or behaviour. The use of a group remaining in school as a control makes this approach a significant improvement over the X O design. It is now possible to establish what is unique to one or the other groups, and therefore possibly a causative factor.

Two varieties of the correlational design used for the causes of early leaving may be mentioned. The first is a notably weak form for dealing with causation. It can be represented by $\begin{matrix} X\ O_1 \\ \quad\ O_2 \end{matrix}$ in which the X O_1 line stands for persons who left early, and were observed afterward, and O_2 stands for pupils who remained in school but on whom observations were taken at the same time as those for the early leavers. This approach is used in studies that ask early leavers for information related to their leaving or determines how the early leaving group differs from the control group and infers that the unique characteristics of the leavers are causes. Apart from the fallibility of memory and self-reported causes, after the fact, this approach suffers major deficiencies in being unable to isolate true causative factors. Factors genuinely responsible for early leaving may have been operative prior to the period the person was asked to recall as well as those escaping his observation. Differences observed between the two groups may be coincidental rather than active causes, and may be influenced by things that have happened to the leaver group since departing from school. For instance, the act of leaving school has probably meant that the person has been exposed to a series of experiences unlike those of the pupil remaining in school; these might have produced some of the differences as well as influenced the leaver's perception of his past experience. In addition, the researcher is hard pressed to obtain a truly representative sample of early leavers since some unknown number may have returned to school and others have disappeared.

The second variety, which represents some improvements, is where observations are made on a group of pupils before some of them leave early. Here the procedure is $\begin{matrix} O_1\ X \\ \quad\ O_2 \end{matrix}$. An example of this is the study that takes measures of pupils' intelligence or grades in school, their attitudes or participation in school activities, and relates differences on such variables to whether the pupil leaves school early or remains. But again there are problems in establishing true causation. The factors that "really" cause early leaving may already be active at the time of the observation, and the difference between O_1 and O_2 is not in fact what brings about X. That is, those who are to be early leavers may have already "selected themselves into" this group and be different from the pupils who remain in school in other and more important ways than those observed. As in the previous case, the O_2 group is not a genuine control group, alike in every way except for the critical factor producing early leaving. For that reason these designs should be used in studies of early leaving only with great caution.

Studies of the consequences of early leaving are the ones that make the most use of the $\begin{matrix} X\ O_1 \\ \quad\ O_2 \end{matrix}$ correlational design. Here the O_2 group may refer to those who have had more education than that represented by X or have successfully completed an educational cycle before leaving. An example of a study using this design would be one that examines differences in income of persons according to their level of education, and seeks to attribute a variation

in income to differences in the amount of schooling. This approach shares with other correlational models the same general problem of not establishing that the two groups were equivalent except for X. Again events or characteristics prior to the act of leaving school may well be the major determinant of post-leaving differences. For example, if family attitudes toward education lead to early leaving, the same syndrome might well be associated with motivation in the labour market and differences in income. In this case the act of early leaving might not be the causative factor, although the $\overset{X}{\underset{}{}}\ \overset{O_1}{\underset{O_2}{}}$ design would show significant differences. This research procedure also cannot fully control the post-school history or the development of the two groups of persons that might cause differences.

The *ex-post facto* design is similar to the preceding one, but uses retrospective data in an attempt to match dropouts and non-dropouts according to selected variables before X. If we use M to indicate this retrospective matching, or equating, of the two groups, the design would appear as: $\overset{M}{M}\ X\ \overset{O_1}{O_2}$. For example, an investigator may select persons whose intelligence test scores were in the same range, and/or who came from the same socio-economic level, and/or who participated to the same degree in school activities. This matching is intended to eliminate differences between the two groups that may have existed even before they left or finished school. Then, for instance, only the fact of leaving or continuing school would seem to explain differences in consequence variables.

The effort is noble but is limited for two major reasons. First, matching generally requires a reduction in the number of persons used in the research, often to very small numbers if several matching variables are employed. This casts doubt on the representativeness of the final sample. More important however, there are almost certainly more variables operating than are available to the researcher, or on which he could match groups if he could measure them. Only if one could eliminate all of the potentially significant differences between the two groups, apart from their difference in educational level, can a true causal relationship emerge.

A quasi-experimental research design that is longitudinal avoids many of the difficulties noted above. While a longitudinal study is rare in the research surveyed, it is the next best after the pure experimental model for dealing with problems of causation. Here data are collected for early leaver and control groups for different points over time. This design can include part, all or more of the following pattern:

$$\begin{array}{ccccccccc} O_1 & O_3 & O_5 & X & O_7 & O_9 & O_{11} \\ O_2 & O_4 & O_6 & & O_8 & O_{10} & O_{12} \end{array}$$

A longitudinal study on the causes of early leaving gathers data on early leavers and the control group of those continuing school for a series of periods before X and probably once again just after X, the point of leaving. Ideally this would be a "forward" study in which a representative cohort of enrolled pupils is taken and studied directly at various times over subsequent years. As a group leaves school early at a given point they are quickly interviewed and the data gathered on them and their environment in previous years is compared with that of a cohort segment remaining in school. In principle the researcher looks back over the data until he finds a point in history when there were no significant differences between the two groups. Observations after that point may give him valid information about causes of early leaving. This approach allows the researcher to gather information close to the time it is operative, permitting greater accuracy and a consideration of a wider range of variables. However, the number of years required to carry it out is often discouraging. So the more common approach is a "backward" study that uses retrospective data for several points in the past. Less time-consuming and less accurate, this type of study starts with O_7 and O_8 when early leaving has taken place and the two groups can be separately identified. The researcher then looks backward in time to obtain information for $O_{1,3,5}$ and $O_{2,4,6}$ on the two groups. Working from a distance he depends on historical data from the permanent record file of the student, if there is one available in that education system, or through recall techniques. Inevitably here the accuracy and variety or variables examined must be considerably less than in the case of the "forward" approach.

In view of the time or accuracy constraints of such forward and backward approaches, a collapsed longitudinal design is worthy of consideration. Common in other research, this $\begin{matrix} O_1 & X & O_3 \\ O_2 & & O_4 \end{matrix}$ design is hardly represented in the studies surveyed on the causes of early leaving. [1] Here, for example, the researcher could take a sample of pupils enrolled in the current year that is representative of types of schools and settings in the system. Pupils, their families and school personnel are interviewed and data from school records gathered. Then shortly after the beginning of the next school year the enrolment lists are consulted to determine who has left school. Interviews are repeated for post-X data, including the stated reasons for leaving. If backward data is also gathered some of the advantages of a perspective on pre-X matching and developmental differentiation between the two groups mentioned before can be included, subject to the limitations of retrospective data. The O_2 O_4 comparison could serve as a control for any differences between the O_1 O_3 data not due to X.

A longitudinal design for studying consequences of early leaving deals with post-school measures on the early leaving group compared with those of a group that leaves later. However, it differs from the correlational model for determining consequences in at least two important respects. It can include information on the pupil before he leaves early (X) that can serve as a control for knowing if his subsequent differences from those with more education are due to pre-X characteristics or to the fact of leaving early. By having a series of observations starting shortly after the act of leaving it is more sensitive to potential influences that are not related to the person's education; hence it is more able to control the extraneous factors causing differences. As with longitudinal designs for studying the causes of early leaving, the approach can be forward, backward or a combination of these. The pros and cons are similar to those discussed above.

More longitudinal research is needed. That is easy to say, but difficult to realize. Administrators and researchers are often not of a mind, nor in a position, to wait too long for results. Forward studies depend upon a longer term commitment and there is always the risk that this greater time investment can end up with less than the desired results. Backward studies often suffer from having to deal with imperfect data or a limited number of variables that compromise its potential.

Nevertheless the longitudinal design has clear advantages and merits prime consideration as a research option. The causes and consequences of early leaving are both ongoing processes in time; causes are cumulative before the act of leaving, as are consequences afterwards. Thus it is best that these be studied over time. The design that includes measures of early leaver and control groups over time can better separate the genuine causal factors from those that are merely coincidental. By suggesting a pattern of development of the causes and consequences of early leaving, it is the best of the feasible methods for indicating the points at which intervention might have the greatest effects in changing the pattern.

Where it is not possible to carry out some form of experimental or longitudinal research, there is a need for more sophisticated statistical analyses that simulate some of the positive features of these methods. The contribution of correlational and *ex-post facto* research could be increased with the use of multivariate designs employing either correlational analysis of variance or non-parametric techniques. By considering the effect of two or more variables at once it becomes possible to identify collinearities that posed as causal relationships. Highlighting interaction effects can reveal relationships hidden in simpler, two-variable analyses. For example, factors associated with dropping out for boys may be linked to continuation for girls—without sex taken into the consideration the relationships are not seen. In general, more third-variable analyses are needed. Techniques such as path analysis and multiple classification analysis can be used to simulate some of the properties of longitudinal studies, allowing more reliable statements about causality than are possible from the same data analysed with simple associational analyses.

1. A variety of this design has been developed by John Oxenham for a study of dropouts in Indonesia (unpublished paper).

This discussion, with its emphasis on the defects of research designs typically used in the studies surveyed, should not be construed as meaning this research is of no value. Even with limited research designs and tools there are various types of real contributions. Useful hypotheses, for instance, are suggested and some make progress towards establishing a probability of causation in certain settings. The purpose, rather, has been to point out the need to exercise extreme caution in the interpretation of reported research findings. In the process there has also been an intent to raise considerations that will improve methodological procedures in future studies.

NEEDS FOR FUTURE RESEARCH

A thorough critique of research on the antecedents and consequences of early school leaving needs to go beyond questions of methodology. As has been noted, the question of remaining or leaving school is bound up with the contribution that education can make to the individual, and to society. Research on the phenomena must therefore direct itself toward the important issue of the kinds of contribution education makes. As noted earlier, if persons with different levels of education do not differ significantly from each other on various measures, we are led to believe that education makes little difference. In such a case, why worry about dropouts?

It seems much more important at this time in history to devote major attention to the study of the consequences of school leaving, rather than to its antecedents. As we learn more about how and in what ways education makes its contribution to individual and societal development, in this age, we can develop a better understanding of the attitude we should take toward the early leaver. We recommend that researchers use studies of school leavers to learn more about what purposes education can serve.

Have studies of consequences looked at outcomes of genuine significance to persons and society? The emphasis on economic variables certainly responds to important human needs. But in short supply is corresponding research on other variables. For example we need studies that test the relationship of schooling to co-operativeness instead of individual competitiveness, that indicate whether persons with higher levels of education contribute more to society instead of just to themselves. Even apart from the question whether schools really do develop people instead of just award them certificates which society recognizes and pays for with increased rewards of income and status, there remains the important question of other dimensions of return that individuals and societies might demand from their education systems.

For example, are those persons with more years of school more or less likely to remain loyal to the political system? One of the primary functions of education in some societies is political socialization; do schools achieve it, or are early leavers as likely to support the regime as those who continue school? Some education systems claim to favour the development of creativity in children: are those who leave school less likely to have this talent than those who remain in? Does education lead to a sense of personal fulfilment; are those with more education, independent of the rewards they received from society because of their degrees, more likely to feel themselves developed than those who interrupted their education for some reason? A handful of studies have been done on these questions, barely pointing the way toward good research.

Do children learn anything in school that is of value? This question has been difficult to answer because of the absence of instruments that could assess the learning of material independent of the subject matter of the schools themselves. This situation may be changing. For example, the National Assessment Program in the United States has shown that it is possible to develop tests of understandings and abilities not based on curriculum goals, that are particularly relevant to the daily life of juvenile and adult citizens. For example, the Program has tests of citizenship behaviour, of knowledge of science in everyday life, or of ability to express oneself effectively in written language. With these instruments it may be possible to determine if schooling contributes to the learning of behaviours genuinely

important for everyday life. Similar research efforts need to be adapted for countries in stages of industrial development, and with cultural and political arrangements, or goals, that are different from those of the United States. Studies on the consequences of school leaving could employ instruments of this kind to assess directly what schooling accomplishes.

Analysis of the kind described above forces the schoolmen to consider what they are doing with their schools, and may provide answers to the attacks of critics like Illich and Freire. The former denies that schools accomplish anything except the sorting of persons on the basis of class characteristics, while the latter claims that schools do well, too well, at socializing us into mindless acceptance of a passive role vis-à-vis our environment. Together both urge that education be seen as a truly developmental force, generating among all men an awareness of their tremendous potentialities as moulders of the world in which they live and giving the insights and skills necessary to remake the world according to their self-developed version of it. The criticisms of Illich and Freire focus on the mass of people denied access to schools and the larger number who are systematically weeded out before having enough exposure to begin to benefit from education. Other critics focus on the remaining few who may reap the economic rewards of educational certification, but are as alienated from themselves and from truth as those who never went to school, and perhaps more.

Most of this is polemic and there is as yet little empirical justification for the argument. The controversy has raised dust, but this should be taken as evidence of concern rather than proof. The importance of the challenge is so great that empirical research needs to be done immediately. Some of the research evidence clearly suggests that it is the organization or climate of the school system itself that discourages students and promotes early leaving. Hence the problem may be less a matter of the characteristics of the student and his family milieu, as is commonly supposed, and more one of the discouraging school that is inadequate to meet the demands and needs of all children who enter it. Such questions require more precise evaluation.

Needed too is research on some of the technical aspects of education. What goes wrong in schools that push children out? What aspects of the curriculum could be modified to increase the retention power of schools? More than that, how can curriculum be modified so that all children learn more? What kinds of teachers are most likely to fail children, and to force them out? How can teacher training programmes, normal school and in-service arrangements, be modified to improve the abilities of teachers to involve students, to catch them up in their own education? To what extent do physical facilities contribute to the early leaving of children? What role do grading policies play? In short, how can the school be modified to decrease the dropout rate, and to increase the positive consequences of education?

A healthy society worries about its illnesses and outcasts. It is equally appropriate that in the development of nations there be concern about the large number of children who start the educational path for a better life but leave, or are pushed off, without achieving the intended gains. The study of early school leavers thus takes on a fundamental importance in the conception of a humane and productive society.

III. Research abstracts

A. ANTECEDENTS OF EARLY SCHOOL LEAVING

1. Arnholter, Ethelwyne G. School persistence and personality factors. *Personnel and guidance journal* (Washington), vol. 35, no. 2, October 1956.

Country. U.S.A. *Date*. 1951-52. *Type of study*. Analysis of field study data.

Educational level. Secondary (high school graduates vs. dropouts).

Purpose of study. An evaluation of the extent to which dropping out/staying in was affected by: (i) student's personality adjustment; (ii) his mother's attitude toward school.

Source of data/procedure. Subjects were selected from the Arsenal Technical High School in Indianapolis; 25 dropouts [1] from the entering class of September 1947 were matched by age, sex and IQ with graduates from the same class. (ii) SES [2] was held " somewhat constant " by including only subjects whose fathers were in the following occupational categories: clerical, sales, service, skilled and semi-skilled. (iii) The California Mental Health Analysis, and the Rotter Incomplete Sentence Blank were used to evaluate the student's personality adjustment. (iv) Specially devised interview schedules were administered to each student and each mother in order to explore their attitudes towards education.

Findings

(a) *Personality adjustment*. (i) In the California Mental Health Analysis the variance of total scores indicated that graduates were significantly better adjusted than dropouts; (ii) the Rotter Incomplete Sentence Blank test showed that while the two groups did not differ significantly on over-all scores, graduates did have a significantly better school adjustment; (iii) girls tended to show a higher level of adjustment than either dropout boys or graduate boys.

(b) *Mother's attitudes*. The difference in the statements of " graduate mothers " and mothers of dropouts indicated that a relationship did exist between the mother's attitudes and the scholastic achievements of their children. More mothers of graduates had

1. No information is given as to how long dropout group had been out of school.
2. Socio-Economic Status is abbreviated as SES throughout the following abstracts.

expected their children to graduate, felt their children were happy in school, would have been concerned at their dropping out, and thought that their sons and daughters had made good adjustments since leaving high school.

2. Bernstein, Basil. Social structure, languages and learning. In: Passow, H., et al., eds. *Education of the disadvantaged: a book of readings.* New York, Holt, Rinehart and Winston, 1967.

Type of study. Discussion.

It is suggested that the learning difficulties characteristically experienced by the lower-class child (including reading problems, short attention span and inability to deal with abstractions) are directly related to the limited linguistic resources provided by his background. Such a child learns a form of language which " symbolizes the normative arrangements of a local group ", a form of language which is typically condensed and rigid, characterized by restrictive meanings and limited formal possibilities. He is at a loss in learning situations dependent upon sophisticated and highly developed verbalization; he is not equipped with the linguistic tools for verbalization and conceptualization that are second nature to the middle-class child. The natural linguistic patterns of the lower-class child isolates him from the school environment; he is defeated from the outset.

3 (66). Bienstock, Herbert. Realities of the job market for the high school dropout. In: Schreiber, D., ed. *Profile of the school dropout.* New York, Vintage Books, 1968.

Country. U.S.A. *Type of study.* Analysis of aggregate data.

Educational level. Secondary (high school graduates vs dropouts).

Source of data. (i) U.S. Bureau of the Census—Graduation status in 1960 of October 1959 high school seniors by selected demographic and economic characteristics and by selected measures of ability. (ii) U.S. Bureau of Labor Statistics—Employment data for 1940-1962.

Findings

(i) The dropout rate was 66 per cent higher among non-white male seniors than among white male seniors, and nearly 100 per cent higher among non-white girls than among their white classmates; (ii) the incidence of dropout was twice as high among students from families earning under $6,000 as among those from families with incomes of over $6,000; (iii) dropout rate was inversely related to IQ scores; (iv) the percentage of students leaving school early in rural, non-farm areas was 8.9, in rural, farm areas 11.3, in urban areas 14.1.

4 (67). Bowman, Paul H.; Matthews, Charles V. Motivations of youth for leaving school. University of Chicago, Quincy (Illinois) Youth Development Project, 1960.

Country. U.S.A. *Date.* 1951-59. *Type of study.* Analysis of field study data.

Educational level. Secondary (high school graduates vs. dropouts from grades 7-12).

Purpose of study. To identify distinguishing characteristics of dropouts; to investigate experiences leading to early school leaving; to investigate what happened to dropouts after leaving school—how successful was their adjustment to the adult world?

Source of data. A longitudinal study of a cohort comprising all children (N=487) who were in the potential graduating class of 1958 in Quincy schools, and representing a nearly complete cross-section of a Midwestern community of 45,000 people.

Procedure. (i) Data was collected on the entire group (their SES, ability, achievement in school, psychological and social adjustment, etc.) for 8 years following the 6th grade.

(ii) All students who left before graduation (N = 138) were interviewed approximately six months afterwards concerning their reasons for leaving, certain aspects of their post-leaving experience and their future plans. (iii) Supplementary data was obtained through interviews with parents and employers, as well as from courts and other community agencies where relevant. (iv) The following comparisons were made: all dropouts vs all stay-ins; early vs. late dropouts; dropouts vs. control stay-ins[1] matched for sex, SES (Warner Index) and intelligence (Chicago Primary Mental Abilities Scales V, R, and S). (v) A follow-up made a year after graduation (i.e. June 1959) provided further information on part of the study population—their marital and vocational histories in particular.

Findings

Over-all dropouts vs. stay-ins. The comparison indicated that (i) while dropouts covered a wide range of intellectual ability, as a group they were significantly below the stay-ins; (ii) there was a very disparate distribution or social classes within the two groups, i.e.

Class	*Dropouts*	*Stay-ins*
	%	%
Upper and upper middle	1.4	11.7
Lower middle	10.1	31.2
Upper lower	40.6	37.2
Lower lower	47.1	19.2

Comparison of dropouts by age at leaving. Students dropping out at an early age (i.e. 15 or younger) did not differ significantly on ability, SES or personality from those leaving later—with the exception of early dropout boys who were significantly (.05 level) lower in SES than either late dropout boys or girls.

Dropout-control comparisons. (a) In spite of the SES matching (based on ratings of father's occupation, family's housing, etc.), further socio-economic differences were nevertheless evident between dropouts and stay-ins. Particularly notable was the larger percentage of dropouts who lived and had attended elementary school in homogeneous low status areas of the city.

(b) Family size and birth order—Dropouts more frequently come from large families (of five or more children) and were less frequently firstborn or only children than control stay-ins.

(c) School experience—(i) Even though dropouts and controls were matched on ability, the control group had an outstandingly better academic record. (ii) Dropouts made reasonable progress in reading during early primary years and were not severely retarded at grade 4 level. However, in grades 4-7 they fell behind and were seriously below average by junior high school. (iii) Dropouts were slightly older than controls when they began elementary school and were retarded four times as often during their school careers. They continued to be held back well into the upper grades, whereas there were no controls retarded after grade 5. (iv) The attendance record of the dropouts grew progressively worse throughout high school—it was far below that of controls. (v) Dropouts participated in fewer extracurricular activities and also participated less intensively than did controls. They tended to feel either excluded or disinterested. (vi) While 80 per cent of controls worked part-time while attending school, only 40 per cent of dropouts did so, reflecting a seeming lesser concern with work and monetary rewards. (vii) 70 per cent of dropouts and 92 per cent of controls felt able to get along well with all their teachers.

(d) Dropouts as seen by peers and teachers (based on sociometric tests administered to students in grades 6 and 9 and on teacher ratings of students made at the same levels)—Dropouts did not emerge as a distinct class in the grade 6 tests and ratings. In contrast, by grade 9 they stood out as a group characterized by both teachers and classmates as withdrawn (or sometimes aggressive), deficient in leadership qualities and lacking friends. This emergence of an identifiable pattern of essentially anti-social behaviour seemed to

1. The control students were interviewed the summer following grade 11. Those who subsequently dropped out in grade 12 were eliminated from the control group.

be related to the change from neighbourhood elementary school to the heterogeneous and more demanding atmosphere of the high school.

(e) Self-reported reasons for leaving school—Just did not like it, 21 per cent; academic failure, 20 per cent; poor social adjustment, 18 per cent; work/financial need, 16 per cent; pregnancy, 9 per cent; teachers unfair, 6 per cent. The reasons given indicated that dropouts did not see education as a means to practical ends, did not value education in itself and that they felt rejected by, and had rejected, the school. Controls, on the other hand, viewed education as a good in itself and as essential to job success. They also reported an active parental interest in their staying in school whereas dropouts felt their parents were indifferent.

(f) Further evidence of the dropouts' negative attitude toward both school and their role in it was provided by an analysis of personal values or concepts thought to be associated with school persistence (as measured by Osgood's Semantic Differential Test). Dropouts saw "self," "father," and "school" as less positive and valuable than controls; they also conceived of "self" and "school" as "less industrious". [1]

(g) On the California Test of Personality (administered in grade 6, at least three years before any substantial incidence of dropping out), total adjustment scores of dropouts were lower than control scores, but only at the .10 level of significance. On subscales measuring self-adjustment and social adjustment, the gap between dropouts and controls widened (reaching the .02 level of significance or better). Three-way analysis of variance indicated, however, that these results were not specifically attributable to dropout-control differences.

(h) When the cohort reached grade 10, the California Psychological Inventory was administered to all those still in school, including 55 of the dropouts. Both controls and dropouts had below average scores. However, dropouts scored significantly (.05 level) below controls on scales for "capacity for status," socialization, communality, responsibility, intellectual efficiency, achievement via conformance and achievement via independence.

(i) One further test of personality adjustment, a sentence completion test designed to evaluate progress in developmental tasks of adolescence, was given in grade 10 to 105 controls and 45 dropouts. Controls tended to score more favourably on all scales, but on 3 out of 4, (those dealing with "achieving autonomy," "learning of psychological-social-biological role" and "self-acceptance") the difference was not statistically significant. But the dropout personalities were significantly marked by a lack of acceptance of and respect for others. Their attitude toward other people was one of suspicion and hostility and their disagreements tended to be person-centred rather than problem-centred.

Conclusions

Findings showed that dropouts typically came from homogeneous areas of low social status. Their parents did not seem to place a high value on school persistence and neither did the dropouts themselves. They generally felt frustrated and insecure in the school situation. Academically they were below average in grades and reading ability. Dropouts were sometimes characterized as withdrawn and sometimes as aggressive, but either way they were not successful in peer group relationships; had trouble making friends, lacked leadership qualities and did not involve themselves in extra-curricular programmes as much as stay-ins. Their personalities tended to be immature, irresponsible and defensive. As a group, dropouts married early—the girls were most likely to be sexually precocious. The dropouts' characteristic lack of skill, responsibility and personal-social adjustment made it difficult for them to obtain and hold jobs while attending school and afterwards as well (see section on *Consequences*).

1. The concepts *success, love, faith, imagination, mother* apparently did not elicit significantly different responses from the two groups.

Recommendations

(a) Emphasis on early identification of potential dropouts and on preventive programmes which, in order to be effective, must be initiated in grade 7 or earlier and should extend through school leaving.

(b) More attention to grouping for individual differences. Special education groups (e.g. those with learning difficulties or social adjustment problems) should be accommodated through special programmes both academic and extracurricular.

(c) Counselling programmes to be set up in the intermediate elementary grades.

(d) Some kind of supervised part-time work experience for vocational preparation.

(e) Back-up work by entire community, e.g. by business in helping to develop experimental work programmes and by social, welfare and health agencies working to improve socio-economic conditions.

5. Cervantes, Lucius F. *The dropout: causes and cures.* Ann Arbor, University of Michigan Press, 1965.

Country. U.S.A. *Date.* 1961. *Type of study.* Analysis of field study data.

Educational level. Secondary.

Purpose of study. To test several hypotheses about early leavers, including: (i) the typical dropout would have an unsatisfactory family relationship; (ii) his family would have fewer close friends and fewer " problem-free " friends than the graduate's family; (iii) his own friends would tend not to be approved by his parents; (iv) his school experience would be characterized by low level of participation and chronic trouble with authority.

Source of data/procedure. 300 high school students (150 graduates and 150 dropouts) from urban blue-collar families with annual incomes averaging slightly under $5,000. Interviews, questionnaires and Thematic Apperception Test were used to study subjects in pairs—one dropout and one graduate—matched on age, sex, IQ, SES and school attended.

Findings

(a) *School experience.* The dropout was commonly characterized by: (i) failure of one or more grades (particularly grades 1, 2, 8 and 9)—85 per cent of those studied were one year behind, 53 per cent were retarded two or more years; (ii) academic performance consistently below potential and below-average grades and reading achievement; (iii) frequent change of schools; (iv) irregular attendance and much tardiness; (v) no participation in extracurricular activities; (vi) behaviour problems requiring disciplinary measures; (vii) feeling of not belonging.

(b) *Peer group relationships.* These were characterized by: (i) friendships with individuals who were either much older or much younger than themselves, were not approved by their parents, were not school-oriented; (ii) exploitative sexual relationships.

(c) *Psychological orientation.* Thematic Apperception Test results indicated that dropouts tended to be resentful of all authority (home, school, police, job, church) and to have both weak self-image and weak deferred gratification pattern.

(d) *Family.* Typical among families of dropouts were: (i) an unhappy situation in which communication, mutual acceptance and sharing of pleasurable experiences were lacking, i.e. in which family solidarity was minimal; (ii) parents inconsistent in affection or discipline; (iii) a greater number of children than parents could readily control; (iv) weak or absent father figure; (v) parents not educated beyond grade 8; (vi) a lack of close family friends—the few friends dropout families did have were often " problem units " (i.e. divorced, deserted, delinquents, dropouts).

(e) *Financial need.* This did not appear to be significant in determining school continuation although the sample was drawn from lower socio-economic strata, only 5 per cent of the dropouts left school because they could not afford to continue.

Conclusions

Of the substantial number of variables affecting the dropout, his relationship with his family was considered to be the crucial one. Although his chances of abandoning school increased with the number of negative factors working against him, a favourable family relationship would enable him to overcome almost any disadvantage. Of the graduates 64 per cent reported that their homes were happy, while 62 per cent of the dropouts described their homes as unhappy. Supporting the positive family relationship of the graduate was a circle of family friends—a sort of modern synthetic kinship system providing personality stabilization and value reinforcement for the developing individual. The graduates' families had twice as many such friends as those of the dropouts.

Recommendations

The possible manipulation of the family relationship variable is acknowledged to be limited and problematic. It is suggested, however, that an attempt to affect the pre-school child and his parents can be made through parental enrichment programmes and pre-school parent-child socialization centres. Alterations in school curricula and government and business work-training programmes offer curative possibilities of varying efficacy. Strong, sympathetic student-teacher relationships (all too uncommon in the dropout's experience) could help to compensate for deficiencies in family situation.

6. Cheal, John E. Factors related to educational output differences among the Canadian Provinces. *Comparative education review* (New York), vol. 6, October 1962.

Country. Canada. *Date.* 1958-60. *Type of study.* Analysis of aggregate data.

Educational level. Primary and secondary (grades 2 to 11).

Purpose of study. To identify relationships between provincial educational outputs (as reflected in school holding power) and selected educational, economic and demographic variables.

Source of data/procedure. The retention rates of ten Canadian Provinces for grades 2 to 11 (derived from a longitudinal study by the Dominion Bureau of Statistics) were selected as the principal output indicator, and were correlated, *inter alia* with: teacher qualifications; provincial expenditures on education; general economic productivity; educational level of adult population; population size and degree of urbanization.

Findings

(a) *Economic factors.* Higher educational output was significantly associated (at the .01 level) with: higher per pupil expenditures; higher teacher salaries; greater ability to support education (net personal disposable income per weighted school-age child); the productivity of a region (higher per capita net value of production).

(b) *Demographic factors.* No significant relationship was found between educational ouptut and population size, rate of growth, or degree of urbanization. However, there was a negative correlation (.05 level) between pupil retention and regional " educational need " (i.e. ratio of school-age population to working-age population).

(c) *Educational and other factors.* (i) Increased retention was also significantly (.01 level) linked to higher teacher qualifications (as measured by the percentage of teachers holding university degrees) and to the educational level of the adult population (measured by median years of schooling of the 30-39 age group selected as representative of the parent population). (ii) Strong negative correlations were evident between educational output and: the percentage of the Roman Catholic population; the "degree of denominationalism" in the school system.

7. Deutch, Martin. Early social environment—its influence on school adaptation. In: Schreiber, D., ed. *Profile of the school dropout.* New York, Vintage Books, 1968.

Country. U.S.A. *Type of study.* Discussion.

This paper argues that whereas there is a higher incidence of psychological malfunctioning among middle-class dropouts, early leaving among lower-class children is more likely to be associated with " sociocognitive dissonance " and general communication problems. (i) The lower-class child lacks contiguity of school-faculty orientation with home-family orientation from which the middle-class child benefits. (ii) Perceptual and developmental demands of school are unfamiliar to the lower-class child. (iii) The lower-class child is more likely to fail because of poor preparation. He lacks the value system, psychological coping mechanisms and family-school support which enable the middle-class child to deal with failure; therefore, failure has a dysfunctional, alienating effect upon him. (iv) Teachers whose attitudes, teaching methods and preferences are middle-class oriented further alienate the lower-class child. (v) The lower-class child internalizes teacher's expectation that he will fail.

8 (69). Dillon, Harold J. *Early school leavers: a major educational problem.* New York, National Child Labor Committee, 1949.

Country. U.S.A. *Type of study.* Analysis of field study data.

Educational level. Dropouts from grades 7-12.

Purpose of study. To determine what measures schools might take to increase their holding power.

Source of data. A 10 per cent sample (N = 1,360) of all youth who left school voluntarily [1] during 1945-46 in several Midwestern communities selected to provide representative cross-sections of the population with regard to social, economic, racial and educational backgrounds.

Procedure. Information (on social characteristics, school performance, reasons for leaving, etc.) was gathered through school records, teachers' appraisals and personal interviews with the dropouts [2] themselves.

Findings

(a) *Family background.* (i) 51 per cent of the dropouts came from families of 5 or more children, 64 per cent from families with children under 16 (thus suggesting that younger children in the family to support might be an economic factor in early leaving); (ii) although the percentage of leavers from broken homes (29 per cent) was 10 per cent higher than the national average for the 14-17 age group, the average leaver lived with both parents; (iii) less than 11 per cent of the group came from homes where a language other than English predominated—thus the majority did not seem to be handicapped by " foreignness "; (iv) the distribution of occupations among parents was fairly normal—factory work predominated among fathers, and clerking, restaurant work and selling among mothers.

(b) *School experience.* (i) The great majority of leavers had spent most of their school years in the same school system from which they later withdrew (79 per cent entered the system in grade 1, 91 per cent during elementary school). Thus unfamiliarity with the local school system could not be considered relevant in most cases. [3] (ii) Over 50 per cent of the dropouts had repeated one or more grades. Three out of four had failed

1. Those who were expelled or who left for military service were excluded from this sample.

2. Out of school for periods ranging from several months to more than one year.

3. This seems to be contradicted by the subsequent report that approximately two-thirds of the leavers had changed schools three or more times!

subjects during junior or senior high school—and nearly half of these failed three or more subjects. Withdrawals from both junior and senior high schools were most common in the grades most frequently failed (i.e. grade 9 for junior high and grade 10 for senior high), suggesting that the discouragement resulting from failure might contribute to the student's decision to terminate his education. (iii) Nearly 40 per cent of the dropouts had IQ's of 95 or over and were thus considered educable in programmes of secondary education; nearly 20 per cent had IQ's above 105, a level considered adequate for post-high school education; the relationship between low IQ and early leaving appeared to be strongest at the lower grade levels—thus, more than three-quarters of those who left school in grades 7 and 8 had IQ's below 85; of those with IQ's above 114, approximately 45 per cent reached grade 11 or 12. (iv) Of those for whom data were available, 73 per cent had not participated in any extracurricular activity.

(c) *Reasons for leaving* (as reported by dropouts themselves several months to a year or more after leaving school). (i) Primary reason for leaving: preferred work to school, 36 per cent; needed money to buy clothes and help at home, 15 per cent; was not interested in school work, 11 per cent; disliked a certain teacher, 8 per cent; could not learn and was discouraged, 7 per cent; was failing and did not want to repeat grade, 6 per cent; wanted spending money, 6 per cent; ill health, 5 per cent; parents wanted youth to leave, 2 per cent. (ii) When asked what changes in school might have encouraged them to remain in school, the dropouts mentioned (in order of frequency): provision of work experience; specific vocational instruction; services of a guidance counsellor; more personal contact with teachers; more participation in school activities; opportunity to change courses; smaller classes with individual instruction; transfer to another school.

Recommendations

In order to increase the school holding power, centred around the manipulation of school-related factors, is was recommended that schools should: know the student as an individual and obtain his confidence; develop greater variety and flexibility in programmes so that more students have an opportunity to achieve in programmes that are meaningful to them; give grade repeaters something new the second time round rather than repetition of the identical subject matter with the teacher who failed him; demonstrate relationship between education and life; provide occupational information; extend social experiences; make special provision for above-average students; begin counselling early; secure parental interest and co-operation.

9. Elder, Glen H., jr. *Adolescent achievement and mobility aspirations.* Chapel Hill, N.C., University of North Carolina, Institute for Research in Social Science, 1962.

Country. U.S.A. *Date.* 1960. *Type of study.* Analysis of field study data.

Educational level. In-school students, grades 7-12.

Purpose of study. To test the hypothesis that potential dropouts are characterized by low aspirations with respect to educational goals—the lower a student's aspirations, the more likely he is to be out of school by grade 12.

Source of data. Partial results of The Adolescent Study sponsored by the National Institute of Mental Health, for which information was collected by questionnaire on approximately 25,000 junior and senior high school students in both rural and urban areas of Ohio and North Carolina.

Procedure. (i) Analysis for this report was done on random subsamples comprising 40 per cent of the sampled students in grades 7-9 and 60 per cent of those in grades 10-12. (ii) Questionnaire data on family, social status, academic achievement, motivation and goals were used in an attempt to identify and analyse correlates of attitudes considered to represent low levels of aspiration, i.e., uncertainty about completing high school and a generally negative outlook toward school.

Findings

(a) *Social class, parental education and " parental independence training "*. These were strongly related to certainty about completing high school: (i) Over 90 per cent of the junior high school respondents with parents high in social status and education and active in independence training definitely believed they would graduate; among students whose parents were low on all 3 variables, only 45 per cent of the boys and 60.8 per cent of the girls expressed certainty about graduating; (ii) Analysis of variance indicated that paternal independence training (see *Conclusion*) was the most influential of the three variables.

(b) *College aspirations.* (i) Determination to finish high school was considerably greater among students who expressed intentions of going to college. Such intentions, while not necessarily realistic among younger students, were interpreted as reflecting generally high aspirations. (ii) However, high parental goals were much less effective in stimulating determination to graduate. Thus, among children who did not plan to attend college, 38.2 per cent indicated that they definitely did not expect to complete high school despite the fact that their parents were insistent on their having a college education.

(c) *Academic achievement* (year's grade average as estimated by respondents themselves) *and academic motivation* (student's place in motivation quartile 1, 2, 3, or 4 determined by scores on 5-item scale). (i) Among 1,766 junior and senior high school students with grade averages of A or B, nine out of ten definitely planned to graduate from high school. Variations in motivation did not appreciably affect this determination. (ii) However, among low academic achievers (with grade averages of C or below) the situation was reversed, i.e. level of motivation made a great deal of difference among both sexes; among boys and girls with C averages who were in the lowest motivation quartile, approximately two-thirds planned to graduate; among those in the first quartile, approximately 85 per cent were certain of finishing school; among those with D or E averages, the percentage committed to graduating was from 22 to 27 per cent higher in the first motivation quartile than in the fourth.

(d) *Negative attitudes toward school.* (i) 80 per cent of the students who expressed uncertainty about finishing high school had felt at one time or another that school was a waste of time. (ii) Less than 40 per cent of the same group said that they would be "very disappointed " if they could not graduate.

(e) *Religion and social class.* (i) The effect of religion (Catholic vs. Protestant) on certainty about completing school and on attitudes toward school was relatively small. (ii) The expression of negative attitudes (feeling that school was a waste of time, lack of disappointment at idea of not finishing) was consistently more common among lower-class students.

Conclusions

The potential dropout was thus seen as likely to be low on academic motivation and grades, indifferent to college, and to have parents low on socio-economic status and independence training. This last variable was suggested to be of critical importance. Those who had been given " reasonable " freedom and responsibility by their fathers were most likely to develop the positive, self-confident, striving approach so relevant to success in school.

10. Florida Dade County Public Schools, Department of Research and Information. *A study of dropouts: Dade County, Florida Public Schools 1960-63.* Miami, 1964.

Country. U.S.A. *Date.* 1960-63. *Type of study.* Analysis of field study data.

Educational level. Dropouts from grades 7-12.

Source of data. A three-year longitudinal dropout study in Dade County, Florida. Of an initial random sample of 4,810 grades 7 and 10 students enrolled in 1960, a total of 471 dropouts (115 having left during grades 7-9, 356 during grades 10-12) and 354 graduates were studied.

Procedure. Information on dropouts was obtained through school records and a detailed exit interview administered by a counsellor-interviewer. A considerable part (see below) of this data was compared with similar information on the control group of 354 graduates.

Findings

(a) *Dropouts only.* (i) Distribution by sex: boys represented 42.6 per cent of those dropping out at the junior high level and 60.1 per cent of the senior high dropouts. (ii) Socio-economic studies: 35.2 per cent of the dropouts were rated as below average in SES, 62.0 per cent as average and 2.7 per cent as above average. (iii) Employment: 77.3 per cent of the dropouts were not working for pay at the time they left school. (iv) Peer status before withdrawal: the majority (72 per cent) of dropouts were accepted by their classmates; 18 per cent were well-liked and 10 per cent disliked or ignored. (v) Reasons given by dropouts for leaving:

	Junior high	*Senior high*
	%	%
Not interested in school	34	22
Discouraged by lack of success	*	14
Suitable programme not available	8	*
Marriage or pregnancy	29	17
To enter employment	8	14
Enlistment in armed forces	*	13

* Incidence of this reason not indicated for these grades.

(vi) Educational plans: among junior high dropouts, 20 per cent of boys and 60 per cent of girls had planned at the time of starting junior high to finish high school; among senior high dropouts, 87 per cent of boys and 76 per cent of girls had planned (in entering senior high) to graduate.

(b) *Dropout/graduate comparisons.* (i) 74.3 per cent of the dropouts were retarded one or more years at time of withdrawal compared with only 17.8 per cent of graduates; (ii) the mean number of subjects failed by dropouts was three time as great as number failed by graduates; (iii) reading achievement of dropouts appeared to be significantly lower; (iv) most of dropouts were below average mentally (as indicated by SCAT and Otis intelligence tests)—their test scores were significantly lower than those of graduates, and the measured intelligence of junior high dropouts was also significantly lower than that of senior high dropouts; (v) only 21.6 per cent of senior high dropouts had participated in extracurricular activities at any time during their high school careers—91.9 per cent of them (vs. 34.2 per cent graduates) were not involved in any activity at the time they left school; (vi) 40.1 per cent of dropouts (vs 14.5 per cent of graduates) came from homes broken by death, separation or divorce; (vii) major wage-earner was in professional/managerial occupation in 25.9 per cent of graduates' families compared with 9.5 per cent of dropouts' families; (viii) nearly twice as many mothers and fathers of graduates had graduated from high school—with regard to completion of college, there was an even wider gap between parents of graduates and those of dropouts.

11. Friedenberg, Edgar Z. An ideology of school withdrawal. In: Schreiber, D., ed. *Profile of the school dropout.* New York, Vintage Books, 1968.

Type of study. Discussion.

The central hypothesis in the argument advanced is that the school system is the crucial variable upon which dropping out depends. The dropout is characterized as being generally disadvantaged and of a low-income background; however, it is not these factors but rather his victimization by American education that is responsible for his dropping out. He is pushed out by a system that fails to be " meaningful to him on his own terms ", a system wholly geared to middle class values and norms which are wrongly forced on him. School is an arena where middle and lower-class core values clash; it is one long process of alienation which the dropout is entirely justified in trying to escape. Nothing will alleviate the dropout problem except a radical reorientation of educational values.

12. Hand, Harold C. Do school costs drive out the youth of the poor? *Progressive education*, January 1951.

Country. U.S.A. *Date.* 1947-48. *Type of study.* Analysis of field study data.

Educational level. Secondary.

Purpose of study. To test the hypothesis that, due to prohibitive costs, lower-class youth tends to be excluded from participation in extracurricular activities.

Source of data. 1947-48 Basic Studies of Illinois Secondary School Curriculum Program covering 79 schools with enrolments of 100 to 2,000.

Procedure. (i) Students were interviewed in order to ascertain the extent to which they took part in three types of activity (including leadership, sports, clubs, etc.) (ii) The average costs of participation in various activities were computed and the correlation between students' SES and their level of extracurricular participation.

Findings

Costs of extracurricular participation ranged as high as $19 per year per pupil for certain club memberships and as low as $0.40 per year for others. Pupils of the upper socio-economic group were substantially (1.1 to 6.5 times) more likely to be involved in extracurricular programmes.

Conclusions

Costs of extracurricular participation are prohibitive for lower class youth. Therefore, their level of participation is very low. This is associated causatively with the fact that 72 per cent of all dropouts in the schools studied come from low income families.

13. Hayes, James E. The relationship of certain school factors to the holding power of selected Iowa secondary schools. Ed.D. dissertation. State University of Iowa, 1958.

Country. U.S.A. *Date.* 1957. *Type of study.* Analysis of field study data.

Educational level. Secondary (high school graduates vs. dropouts from grades 9-12).

Purpose of study. To determine the relationship of certain school characteristics (size, programme of studies, physical plant, etc.) to the varying rates of dropout in a number of Iowa public high schools.

Source of data. A 10 per cent stratified (by size) random sample of Iowa public high schools providing a total of 73 schools for study: Group I, 32 schools having 10-99 pupils enrolled in grades 9-12; Group II, 17 schools having 100-249 pupils; Group III, 15 schools having 250-499 pupils; Group IV, 9 schools having 500 or more pupils.

Procedure. (i) The holding power of each school was assessed on the basis of dropout ratios calculated from the number of pupils entering grade 9 in September 1951, 1952, and 1953 who withdrew before graduation and the total number of pupils enrolling in grade 9 in those years, less those transferring to other schools. (ii) Field workers visited each school for purposes of evaluation using scales developed by the Cooperative Study of Secondary School Standards to rate schools (on a 5-point scale with 3 = good) on their programme of studies, guidance programme, extracurricular activities, and physical plant. They also used specially developed measures of teacher and student morale. (iii) Findings were analysed by means of zero-order intercorrelations, scatter plots, testing of null hypotheses (employing the " t " statistic).

Findings

(a) *School size.* The schools of the middle sizes (i.e. those having 100-499 students) appeared quite clearly to have rates of holding power superior to both the very small schools and the very large ones. Group II schools had the highest retention rates (89 per cent), Group IV the lowest (76 per cent).

(b) *Guidance programmes.* In no phase of the analysis did findings approach significance for a relationship between holding power and guidance programmes. However, it is stressed that schools scored consistently lower on guidance than on any other factor studied—inded most of them did not employ practices sufficient to be described as guidance programmes.

(c) *Programme of studies.* Nor was there any suggestion that this factor was associated with holding power. Correlations were generally positive but low between retention levels and such factors as breadth of elective offerings generally, extent of elective offerings for boys/girls, provision for individual differences between students, and provision for library.

(d) *Physical plant.* With a single exception (a significant negative correlation with holding power for boys in Group II schools) there was no association between holding power and the two aspects of physical plant which were considered, i.e., facilities of instructional programmes and provision of clean and attractive buildings and grounds.

(e) *Extracurricular activities.* Correlations between such activities (their extent, breadth and degree of accessibility to all students) and holding power produced the most consistently significant (.05 level) results in the entire study but, even so, the significance of the relationship did not persist in Group I and III schools.

(f) *Student morale.* The "t" test results indicated a significant difference in student morale (i.e., liking for school, rating of teachers and counsellors) between high retention and low retention schools in Group II. Otherwise, there was no evidence that this factor exerted any influence on holding power.

(g) *Teacher morale.* Only in schools of moderate size (Group II) was there any significant association between holding power and teacher morale based on teachers' ratings of morale and of degree of co-operation between teachers and administrators.

Conclusions

No clear relationship of holding power to goodness of school factors studied was discernable, except in the case of extracurricular activities. The significant influence of this variable (also confirmed by other studies) seemed logical since " where the extracurricular programme is broad and offers students of all groups and levels of achievement participation and success opportunities, it appears that the many students not scholastically inclined or successful may find the measure of satisfaction necessary to continue in school ". The other significant relationships were so few and erratic as to be almost certainly due only to chance. However, since findings were generally positive, though not significant, it is suggested that improvement of school programmes and services might also improve, at least to some extent, school holding power. Beyond this, it appears that non-school factors not within the scope of this must be taken into account.

14. Larsen, Roland S. A study of selected personality factors associated with high school dropout. Ed.D. dissertation. Michigan State University, 1964.

Country. U.S.A. *Date.* 1963. *Type of study.* Analysis of field study data.

Educational level. Secondary (high school graduates vs. dropouts from grades 10-12).

Purpose of study. (i) To identify certain personality characteristics which were common to students who dropped out of school but differed from those of students who reached graduation. (ii) To develop selected items from the Minnesota Counselling Inventory (see below) into a predictive instrument for the identification of potential dropouts.

Procedures. (i) A survey of 19 Minnesota public high schools in cities with populations under 50,000 produced a group of 400 dropouts (200 girls and 200 boys) who met the necessary criteria, i.e. had taken the Minnesota Counselling Inventory (designed to assess non-intellectual aspects of an individual's personality structure, personality

dynamics and personality problems) as 10th graders during the first semester of the years 1956-59, and had subsequently left school before graduation.[1] From the same schools 400 graduates were chosen at random for comparison with the dropouts. (ii) In order to double cross-validate findings, the sample was divided into four pairs of subgroups, two of which paired 100 girl dropouts and 100 girl graduates in each and two of which paired 100 boy dropouts and 100 boy graduates in each. (iii) Each dropout-graduate pairing was compared on responses to the 355 items of the MCI. Items on which dropouts and graduates differed significantly (105 level and above) were used to design scales predictive of dropout personality. (iv) To confirm the validity of these scales in discriminating between dropouts and graduates they were then applied to the re-paired subgroups.

Findings

Significant variations revealed by the initial MCI item analysis and by dropout scale scores appeared to suggest the following pattern of personality differences in dropouts and graduates. (i) The most pronounced differences between dropouts and graduates of both sexes related to their feelings about their homes and families. Dropouts expressed a high level of dissatisfaction—home was often seen by them as a " stressful, unhappy place ", lacking in an atmosphere of love and concern. Many had negative feelings not only toward parents but also toward other family members. With parents there were frequent conflicts of values and ideals and a sense of poor communication. Dropouts were particularly resentful of parents' interferences in their lives. (ii) With regard to interpersonal relationships outside the family, the dropouts tended to experience difficulty and tension in group situations. They were uneasy and unsure of themselves with other people. This was particularly true of girl dropouts. Dropouts of both sexes felt that others were not concerned about them. (iii) Dropouts, the girls especially, seemed to lack *joie de vivre*, to find life less interesting, challenging and rewarding than the graduates did. (iv) Both male and female dropouts lacked self-confidence, were uncertain of themselves and their ability to do things, and often had trouble in facing difficult situations. (v) Male dropouts did not seem to experience undue anxiety. Girls, however, were more likely to be fearful, insecure and worried; they were also more easily discouraged and depressed than either girl graduates or boy dropouts. (vi) Dropouts, once again girls above all, were prone to feelings of futility about life and the future and often felt like giving up. (vii) Dropouts more often mentioned having " strange and peculiar " (sic) thoughts and experiences. (viii) Difficulties in concentrating were more common among dropouts who often saw themselves as daydreamers. (ix) Dropout responses indicated higher levels of hostility and mistrust and stronger urges to violate social codes and conventions aggressively, e.g., by hurting some one or by breaking things. (x) Guilt feelings were more prevalent among dropouts; they were often concerned about past errors and remorseful about the way they had led their lives. (xi) Dropouts of both sexes described specific health complaints more often than graduates. Girl dropouts were more anxious about their health than their male counterparts.

Conclusions

It was noted that girl dropouts differed more consistently from girl graduates than boy dropouts did from boy graduates. Thus it seemed that the dropout personality scales developed would be most useful in the identification of potential female dropouts.

15. Lichter, Solomon O., et al. *The dropouts*. Glencoe, Ill., The Free Press, 1962.

Country. U.S.A. *Date*. 1954-58. *Type of study*. Analysis of field study data.

Educational level. Secondary.

1. The selection process eliminated: transfers and dropouts who later returned to graduate; those with " questionable validity " scores on the MCI; and 62 male students dropped at random in order that sample would comprise even number of both sexes.

Purpose of study. (i) To investigate relationships between potential early school leaving (and other school problems) and emotional and personality disturbances in students. (ii) To attempt preventive treatment for identified potential dropouts.

Source of data/procedure. Chicago public high schools were asked to refer potential dropouts (only those considered intellectually capable of finishing school) for clinical analysis and treatment. Of 105 referrals, a treatment group of 70 (of which 30 eventually left school) was studied intensively over a three-year period.

Findings

(i) 76 per cent of the study group had character problems, i.e. maladaptations of the entire personality; in such cases, school was only one of many areas of maladjustment. (ii) Personality formation was frequently immature; students were unable to function at high school level. (iii) There were striking differences between the problems of boys and girls: the boys had chronic school problems which had begun in elementary school, frequently used school as a " psychodynamic arena " for working out conflicts derived from other areas of their lives, and had problems manifested by inactivity, passivity, withdrawal, ineffectuality, non-achievement; the girls often had school problems only with onset of adolescence, tended toward active troublemaking and rebellion in all areas of their lives (thus school did not seem to serve the same psychodynamic function for girls as for boys), and tended to be aggressive and defiant. (iv) A strong similarity was found between character formations of parents of potential dropouts and the children; many of these mothers and fathers had immature personality formations and parent-child relationships were generally unhealthy and distorted.

Conclusions

Although the incidence of emotional disturbance among the potential dropouts was high, no single typical disorder could be identified. The results of clinical treatment indicated that alleviation of personality problems was achieved in 48 per cent of the treatment group of 70. On this basis, manipulation of the complex variable of personality problems could be inferred to have some chances of success (about 50-50).

16. Liddle, Gordon P. Psychological factors involved in dropping out of school. *The High school journal* (Chapel Hill, N.C.), vol. 45, no. 7, April 1962.

Country. U.S.A. *Date.* 1951-60. *Type of study.* Analysis of field study data.

Educational level. Primary and secondary.

Source of data/procedure. A longitudinal study of 1200 students from elementary school to early adulthood in a Midwestern city of 45,000. All children in the public schools who were in the fourth and sixth grades in 1951-52 (i.e. the potential high school graduates of 1958 and 1960) were studied, regardless of whether they stayed in school or dropped out. Comparisons were made between dropouts and graduates matched on SES (low) and IQ (also low).

Findings

(i) Results of the Semantic Differential Test indicated that a pervasive sense of failure was common among dropouts. They tended to place a lower value both on themselves and on their schools and to see themselves as less industrious than did the control group. (ii) The dropouts as a group had below average social and personal adjustment. Their sense of isolation, rejection and defeat produced a lack of respect for others and a general pattern of aggressiveness. (iii) First-born children and children from small families dropped out less often than those from larger families—perhaps because they received more parental attention. (iv) Few of the dropouts' parents took an active interest in what their children were doing at school. In contrast to parents of graduates, they seemed to be concerned more with " staying out of trouble " and " getting by " than

with high achievement. (v) Lower class children who attended predominantly middle-class schools with a strong emphasis on achievement were much less likely to leave school early than children of low SES at predominantly lower class schools.

17. Livingston, A. Hugh. High school graduates and dropouts—a new look at a persistent problem. *School review* (Chicago), vol. 66, 1958.

Country. U.S.A. *Date*. 1944-56. *Type of study*. Analysis of field study data.

Educational level. Primary and secondary.

Source of data/procedure. A twelve-year study of 309 students in Illinois from first grade to high school graduation or dropping out (193 graduates and 116 dropouts covered). Twenty-four possibly influential variables were analysed for degree of relationship with graduation or non-graduation.

Findings

(i) Significant relationship with persistence in school existed for 18 of the factors, the most important of which were (in descending order): participation in extracurricular activities at secondary school level, mental ability, reading level, elementary school grades failed and elementary school participation. (ii) Insignificant factors included: sex, race, age at school entrance, activity of mother, occupational status of principal wage earner and number of intradistrict transfers.

Conclusions

Multiple-correlation analyses reinforced the belief that dropping out of school is a complex sequence of events that varies for each individual; however, the study revealed a dropout prototype characterized as follows: limited mental and academic skills; limited academic success at school; unsuccessful in social relationships at school; home environment unstable or uninspiring.

18 (72) Lovett, Stephen K. The post-secondary school adjustment of matched groups of graduates and dropouts with special reference to underlying familial differences. Ed.D. dissertation. Harvard University, 1955.

See *Consequences* entry for complete description of study.

Purpose of study. Since the entire sample was comprised of students who might normally have dropped out, an attempt was made—through investigation of possible differences in family life and other factors—to find out why only some of them had actually done so.

Procedure. The questionnaire (cf. *Consequences*) included 20 items which permitted comparison of dropouts and graduates on variables relating to: (i) family/home, i.e., parental aspirations, closeness of family, and independence allowed child within family group; (ii) outside the home, i.e., school activities, educational attainment of friends, and relationships with teachers.

Findings

(a) *Family/home*. (i) Both fathers and mothers of graduates were significantly more persistent than parents of dropouts in wanting their sons to finish high school. (ii) Almost all respondents in both groups reported that they got along well with their parents while in high school. However, more dropouts than graduates felt that their families were closely knit. (iii) Dropouts and graduates did not differ with regard either to freedom to come and go on school nights during high school or to use family automobile. However, more graduates did hold part-time jobs and own cars during high school.

(b) *Outside the home*. (i) Dropouts were more likely to have dropouts as friends while

graduates were more likely to associate with other graduates.[1] (ii) Participation in extracurricular activities was greater among graduates. (iii) There was no significant variation between the two groups with regard to level of dislike for their high school teachers; however, more graduates listed teachers whom they had liked. (iv) Nine dropouts, but no graduates, claimed that they had left school largely because of dislike for teachers.

Conclusions

The above findings (as well as the impressions gained over a series of interviews—see *Consequences*) were construed as evidence of an underlying difference between dropouts and graduates with regard to family attitudes and values which possibly influenced both school and post-school adjustment.

19. Mannino, Fortune V. Family factors related to school persistence. *Journal of educational sociology* (Washington), vol. 35, 1962.

Country. U.S.A. *Date*. 1958. *Type of study*. Analysis of field study data.

Educational level. In-school students and dropouts from grades 7-12.

Source of data/procedure. Study of families of 77 dropouts in rural northwest Florida compared with control group of 34 families of in-school students of similar socio-economic background. Interviews were conducted with mothers of each dropout and each in-school student.

Findings

(i) No evidence of any relationship between school persistence and: the opinions of mothers on education; mothers' expectations regarding school attainment; mothers' expectations regarding occupational achievement; acquaintance with families having children known to have withdrawn from school. (ii) However, there were significant differences between the two groups as follows: a larger proportion of mothers of in-school children showed interest in and encouraged their children's schooling; and a larger proportion of these same mothers stated that they were acquainted with families with children attending college.

Conclusions

While both groups seemed to have taken on middle-class educational values, only one group (the mothers of in-school children) had found effective and meaningful ways to realize these values.

20 (73). Miller, S.M.; Comings, Carolyn; Saleem, Betty. *The school dropout problem.* Syracuse, State of New York, Division for Youth, 1963. (Part I).

Country. U.S.A. *Date*. 1959-62. *Type of study*. Analysis of field study data.

Educational level. Secondary (dropouts from high school).

Source of data/procedure. A descriptive profile of 565 students who had dropped out of high school (in Syracuse, New York) during 1959-60 was compiled, using data from the following sources: school records, work permits filed at Syracuse Board of Education, New York State Employment Service, Welfare Department, Armed Forces Examination Station, Central Registry of Juvenile Offenders, Police Department Identification Bureau.

Findings

(i) There were 10 per cent more boys than girls among the dropouts. Males were older at the time of leaving school and more likely to be retarded in grade level. (ii) The analysis

1. Each respondent was asked to name his three best friends while in high school. Educational attainment of each friend listed was determined through school records.

of family backgrounds showed that 58 per cent of the dropouts came from large families containing four or more children and that although 23 per cent were from homes broken by death, divorce, etc. 56 per cent were living with both parents (it is suggested that this relative home stability may have been due partly to under-reporting of low-income families likely to be less stable). A comparison with the occupational structure of the Syracuse labour force indicated that parents of dropouts were for the most part in blue-collar jobs (71 per cent). Over 40 per cent of dropouts' families had received welfare assistance at some time. (iii) Of 236 dropouts tested, 61 per cent had IQ's of 90 or higher; the group's mean IQ was 92.8, only slightly below the national mean. (iv) At time of leaving, approximately 80 per cent were at least one year retarded and 23 per cent were severely retarded (i.e. three or more grades behind); (v) The reasons for abandoning school most commonly given by dropouts themselves were " to go to work " (29 per cent) and "age" (18 per cent). (vi) Of the sample, 26 per cent obtained one or more work permits in the period 1957-61; 23 per cent of these permits were obtained prior to dropping out (boys tended to start work as pinboys or stockboys while girls began in sales or clerical jobs, as waitresses, or as kitchen helpers). (vii) Of the boys and girls studied, 20 per cent had been listed with the Central Registry of Juvenile Offenders during 1957-60; more than half of these had two or more listings. Boys were apprehended more often, were more likely to be repeaters and committed more serious offences. The most common serious offences among both sexes were those relating to property; however, over-all patterns of types of offence were quite different for boys and girls.

21. Pearl, Arthur. Slim and none—the poor's two chances. In: Schreiber D., ed. *Profile of the school dropout*. New York, Vintage Books, 1968.

Country. U.S.A. *Type of study*. Discussion.

The disadvantaged, poor child fails mainly because the educational system never gives him a chance; track systems discriminate against the child of low SES; early labelling of poor children as " dumb " irrevocably affects their self-image, learning capacity and aspirations; school rules are differentially enforced in favour of the middle-class child; education is totally removed from the life experiences of the poor; schools offer no meaningful linkage with future for the non-college bound student; the poor child gets no rewards from the system—his school experience is a prolonged reinforcement of humiliation.

22. Sando, Rudolph F. A comparative study of early school leavers. Ph.D. dissertation. University of California (Berkeley), 1952.

Country. U.S.A. *Date*. 1949-51. *Type of study*. Analysis of field study data.

Educational level. Secondary (grades 10 and 11).

Purpose of study. To compare opinions of high school dropouts and non-leavers (and their parents) regarding various aspects of their school experience: curriculum, extra-curricular activities and relationships with other students and with teachers.

Source of data/procedure. (i) Of a total population of 1,191 students enrolled in grade 10 in 1949-50 in eight high schools (Contra Costa, California) the first 100 who dropped out before January 1951 were chosen for study. (ii) Each dropout was paired with a non-leaver of the same sex and SES [1] in order to control the effect of these variables. (iii) Interviews based on Illinois Inventories of Pupil and Parent Opinion were conducted with students and parents in both dropout and non-leaver groups.

Findings

(a) *Performance*. The only significant difference between the two groups was that dropouts reported lower grades.

1. As rated in Sims Socio-Economic Scale.

(b) *Opinions and attitudes (dropouts vs. stay-ins).* (i) Dropouts expressed more dissatisfaction than non-leavers with: relationships with teachers and other students; teachers' interest in them and knowledge of their special needs; amount of help received from the school on social problems; and discipline. They also had a stronger feeling of "not belonging". (ii) Dropouts were also more critical of school curriculum, more discontended with: the variety and usefulness of subjects offered; the amount gained from their school work; the vocational and curriculum guidance offered by the school. (iii) There were few differences between dropouts and non-leavers regarding participation in extracurricular activities and the cost of such activities. Most striking was the discovery that a large percentage of both groups did not participate and felt that costs were prohibitive. [1]

(c) *Parents.* Significant differences of opinion appeared between dropouts and their parents, with the latter less critical and less dissatisfied than their children (except in regard to extracurricular activities). No comparable gap existed between non-leavers and their parents.

Conclusions

Early leaving relates as much to a student's thinking and feeling about school as to socio-economic and school characteristics stressed in previous (pre-1952) studies.

23. Thomas, Robert J. An empirical study of high school dropouts in regard to ten possibly related factors. *Journal of educational sociology* (Washington), vol. 28, 1954.

Country. U.S.A. *Date.* 1947-51. *Type of study.* Analysis of field study data.

Educational level. Secondary.

Source of data/procedure. (i) A random sample of 434 students were selected from a grade 9 class beginning high school in 1947. (ii) Each member of the sample was studied for the duration of his high school career, i.e. until he either dropped out or graduated.

Findings

(i) Age, sex, ethnic background, reading ability, grades, choice of curriculum and distance travelled to school were not significantly associated with dropping out. (ii) Significant correlations did exist between school persistence and the following variables (in order of strength of correlation); participation in extracurricular activities, IQ, and SES (father's occupation).

Conclusions

Of the ten variables analysed, extracurricular participation appeared to be the one most strongly related to the likelihood of completing high school.

24 (78). U.S. Department of Labor, Bureau of Labor Statistics. *School and early employment experience of youth: a report on 7 communities 1952-57.* Washington, U.S. Government Printing Office, 1960. (U.S. Department of Labor Bulletin no. 1277)

Country. U.S.A. *Type of study.* Analysis of field study data.

Educational level. Secondary (high school graduates vs. dropouts from grades 8-11).

Source of data/procedure. (i) Bureau of Labor Statistics surveys covering 22,000 students (10,000 dropouts and 12,000 graduates) in seven areas ranging from 30,000 to 350,000 in population. (ii) Basic data (IQ, school performance, etc.) were obtained from schools in each area on all students who, during the period of 1 to 5 years prior to the survey, had either dropped out or graduated but not gone on to college. (iii) Personal interviews with a subsample of 4,000 provided supplementary information.

1. These findings would imply that extracurricular participation is a function of socio-economic level rather than an independent "social" antecedent of dropping out.

Findings

(a) *Mental ability.* Twice as many dropouts as graduates (45 and 21 per cent respectively) had below normal IQ's (under 90); three times as many dropouts (31 per cent compared to 10 per cent of graduates) had IQ's of a level (under 85) generally considered too low for acquisition of the adequate reading ability essential for completion of most senior high school subjects. At the other end of the spectrum, only 6 per cent of the dropouts had IQ's of 110 or over compared to 16 per cent of the graduates.

(b) *Grade retardation.* Of the dropouts 84 per cent were retarded by at least one year; 53 per cent by two or more years. Retardation was consistently more common among boys than among girls.

(c) *Reasons given for leaving.* [1] Adverse school experience (failure resulting in grade retardation, dislike of teachers, general lack of interest, etc.) emerged as the most important single reason for dropping out in both personal interviews (35 per cent of cases) and school records (22 per cent). The second most common reason for leaving was to go to work (18 per cent of cases). Early marriage was a major reason among girls (27 per cent of cases in interviews, 21 per cent in school records) but hardly figured at all among the boys. Only 4 per cent of the dropouts were noted in school records as having left because of adverse home experience; in interviews, 8 per cent of the dropouts themselves gave this reason.

25. Youmans, E. Grant. Factors in educational attainments. *Rural sociology* (Madison), vol. 24, 1959.

Country. U.S.A. *Date.* 1957. *Type of study.* Analysis of field study data.

Educational level. Secondary.

Purpose of study. To test the hypothesis that educational attainment is influenced not only by social status, but by certain other home, school and community factors as well.

Source of data/procedure. A sample of 480 families from three low-income farming areas in Kentucky. Families were divided into three social status groups (according to Sewell socio-economic status scale). Interviews were conducted with 480 mothers and 439 children (63 per cent currently in high school and 37 per cent having dropped out during the three years previous to the survey).

Findings

In the lowest social status category 50 per cent of youths were attending school as opposed to 80 per cent of the highest status group. In each status category, the youths currently in school possessed more favourable educational values than the dropouts; however, the mother's educational values were associated significantly with child's school persistence only in the lowest status group. The relationship between IQ score and staying in school was most pronounced at highest social status levels. Thus, the incidence of quitting school was eight times greater among high IQ, low-status children as among those with high IQ and high social status. Dropouts in all status categories reported more often than stay-ins that they had stayed home to do unpaid work during their last year at school. Participation in extracurricular activities appeared to influence both high- and low-status youths not to abandon school.

26. Douglas, J.W.B.; Ross, J.M.; Simpson, H.R. *All our future: a longitudinal study of secondary education.* London, Peter Davies, 1968.

Country. England, Wales, and Scotland. *Date.* 1957-62. *Type of study.* Analysis of field study data.

1. It is suggested that reasons for leaving given in interviews reflect, to some extent, what actually happened after the student left school rather than the precise motivation at the time of leaving.

Educational level. Secondary (4th, 5th, and 6th year).

Purpose of study. An investigation of school, home and other factors affecting the secondary school progress (academic performance and length of school life) of a group of students over a period of five years.

Source of data. This report is based on the continued analysis of the National Survey sample—a group of 5,362 boys and girls comprising a representative sample (overloaded at a ratio of 4:1 with children of middle-class families) of all those born in Great Britain in 1946. This cohort has been studied since early childhood with regard to their family background, physical characteristics and health, personality and behaviour, ability and academic achievement.

Procedure. The methods of obtaining the data and the age of the child at the time when the data were collected were as follows: (i) Interviews with mother by school nurses or health visitors provided information on general home circumstances and on parents—their background, education, personality and health—8 weeks, 2, 4, 6, 7, 8, 9, 11 and 15 years old; (ii) medical examinations—6, 7, 11, 15; (iii) tests of intelligence and attainment (administered in school)—8, 11, 15; (iv) teacher reports, including behaviour ratings, attendance records—7, 10, 13, 15, 16; (v) questionnaires completed by survey members themselves—13, 15; (vi) questionnaires completed by headmasters on both the school leaving age and examination results of survey subjects and on staffing, facilities, etc. of schools—11, 15.

Findings

(a) *Educational status of group at end of five-year period.* Fifty per cent left school at earliest opportunity, i.e. at minimum leaving age of 15 which they reached in middle of 4th year secondary school; 10 per cent left at end of 4th year; 15 per cent left during or end 5th year (mostly at end, after " 0 " level exams); 25 per cent were still in school.

(b) *Social class and ability.* Upper middle class pupils were 2½ times as likely to stay on after the minimum leaving age as lower manual working class pupils, 4 times as likely to complete their fifth year of secondary school and nearly 6 times as likely to start the sixth year. The longer school life of middle class children was partly a function of their higher measured ability; however, the influence of social class persisted even with ability held constant.

(c) *Primary school background.* The incidence of staying on at secondary school—especially among working class children—seemed to be greater among those coming from primary schools with predominantly middle class intakes.

(d) *Regional educational provision.* The patchy distribution of grammar schools throughout the country produced regional differences in leaving patterns. The percentage of pupils of all levels of social class and ability staying on after the minimum leaving age was highest in the areas providing the most selective school places.

(e) *Family factors.* Low levels of parental interest and encouragement were associated with poor school performance and early leaving in all social classes. High interest was closely linked to high achievement, good results in " 0 " level exams and longer school life. Early leaving was also more common among children suffering from family strains such as a father's long-term unemployment or the death of a parent after an extended illness. It was prolonged stress that depressed educational attainment—shocks such as a father's sudden death had no apparent effect. Length of school life was approximately equal among children from one- and two-child families. Students from families with three or more children tended to leave school sooner (even those of middle class background).

(f) *Personality and behaviour.* Pupils described by teachers as troublesome, poor workers or inattentive in class were more likely at all ability levels to leave early than those who were favourably assessed. Those showing many signs and symptoms (such as stammering, nail biting, bedwetting, unexplained vomiting and abdominal pain) of disturbed behaviour

tended to leave school sooner. In all social classes and in all types of school, the incidence of early leaving was higher among delinquents (almost all of whom were boys) than non-delinquents.

(g) *Attendance.* Absence from school at either primary or secondary level was associated with poor test performance and early leaving, particularly among lower class pupils.

(h) *Physical factors.* Poor health in childhood, even severe illness, did not affect school leaving age. Boys and girls who reached puberty at an early age stayed on longer at school than later maturers.

27. Elder, Glen H., jr. Family structure and educational attainment: a cross-national analysis. *American sociological review* (Washington), vol. 30, February 1965.

Country. U.S.A., Great Britain, Federal Republic of Germany, Italy, Mexico. *Date.* 1959-60. *Type of study.* Analysis of field study data.

Educational level. Secondary.

Purpose of study. To investigate the effect of parent-adolescent relations on the likelihood of a child's reaching secondary school.

Source of data/procedure. A secondary analysis was made of material from 1,000 interviews originally obtained by Almond and Verba during their 1959-60 survey of political behaviour in various countries.

Findings

Parental dominance (authoritarian family structure) was negatively associated with the probability of getting as far as secondary school in all five countries. In the United States, the Federal Republic of Germany and Great Britain, the largest percentage of children attaining the secondary level had backgrounds combining democratic parent-child relations and egalitarian (as opposed to " father-dominated ") conjugal relations. However, comparable educational achievement in the male-oriented cultures of Italy and Mexico was most likely to occur among students from homes where parent-child relations were democratic but conjugal relations were father-dominated. The association between degree of parental dominance and educational attainment was strongest among urban-born (except in the U.S.A.), middle-class individuals—its relative weakness among persons of rural background was attributed to lack of educational opportunities in rural areas.

Conclusions

The combination of factors most favourable to extended education was: youth, democratic upbringing, urban birth and male sex. Conversely, the least favourable configuration was: age, authoritarian upbringing, rural birth and female sex.

28. Eggleston, S. John. Some environmental correlates of extended secondary education in England. *Comparative education* (Oxford), vol. 3, no. 2, March 1967.

Country. England. *Date.* 1958-63. *Type of study.* Analysis of field study data.

Educational level. Secondary (4th and 5th year).

Purpose of study. An investigation of the relationship between selected school and community variables and the incidence of staying-on beyond minimum leaving age in English non-selective secondary schools.

Source of data/procedure. From 260 non-selective schools (240 modern and bilateral secondary and 20 comprehensive) located in a " representative " group of eight English local education authority areas. The schools were examined and rated on the following variables: size, age and condition of school buildings; material environment (i.e.

specialist teaching facilities); provision of extended courses and success rates in associated examinations; intake of students and retention rates of selective schools in the same area; SES of surrounding area (as measured by Juror Index). These variables were related by product moment correlation to school holding power as reflected by: extent of staying-on after age 15 (as a percentage of total 14-year-old age cohort in school the previous year); and extent of staying-on after age 16 to enter a fifth year of school (as a percentage of total 14-year-old age cohort in school two years previously).

Findings

(i) High incidence of staying-on at both 15 and 16 was associated most strongly with well developed programmes of extended courses and next most strongly with successful examination results—particularly in G.C.E. 5th and 6th year examinations. (ii) School size proved to be the next most important factor—large schools being significantly (.01 level) more likely to have greater holding power among both 15 and 16 years olds; it is suggested that this reflects the availability to large schools of better staffing and facilities for running successful examination courses. (iii) While related significantly to higher retention rates in both age groups, newer school buildings and superior material environment appeared to be much more important for the initial decision to stay on at 15—perhaps because by age 16, the pupils had internalized the goals of the school and become relatively indifferent to the architecture. (iv) In the survey areas as a whole, staying-on in non-selective schools showed no relationship to either level of intake or holding power of selective schools; this evidence refuted the hypothesis that a high selective intake would drain off able pupils from non-selective schools. However, in areas where secondary school systems were most conventional (i.e., tripartite rather than comprehensive), the hypothesis was reversed: i.e., staying-on in non-selective schools was positively and significantly correlated with high levels of intake and retention in neighbouring selective schools. (v) Retention rates were highest in schools located in areas of superior SES (the correlations were significant at the .01 level for staying-on after 16 but only at the .05 for staying after 15); this " stronger relationship with the external environment " among older students is seen as a corollary of the concomitantly diminished influence of the school's physical environment (see (iii) above). (vi) Comprehensive systems were superior in holding power to tripartite systems; this was attributed principally to their location in areas of higher SES.

29. Girard, A. Selection for secondary education in France. In: Halsey A. H., et al., eds. *Education, economy and society*. Glencoe, Ill., The Free Press, 1961.

Country. France. *Date*. 1954. *Type of study*. Analysis of field study data.

Educational level. Primary.

Source of data/procedure. A survey of 18,331 school leavers: 5,208 aged 11 or over who were leaving elementary school to pursue further education (secondary senior elementary and technical) and 13,123 aged 14 or over who had stayed the full elementary course and had thus, in most cases (85 per cent) reached the terminal point in their education. The geographical distribution of the sample was fully representative of all parts of France. The two groups were compared by social class, family size, and scholastic achievement in order to assess the relationship of these factors to continuation of education.

Findings

(a) *Family size*. The 11-plus leavers continuing their schooling tended to come from smaller families than did the children who had remained in the elementary system.

(b) *Scholastic achievement* (as measured by teachers' ratings of students on a five-point scale). This was the factor most directly influencing a child's chances of further education. The distribution of academic ratings among continuing students remained constant regardless of SES, e.g. approximately 66 per cent of "continuers " from both farm and professional families were rated " good " or " excellent " students.

(c) *Social class.* The rates of continuation differed significantly by social class. Only 13 per cent of agricultural labourers' children and 21 per cent of unskilled workers' children undertook post-primary education, vs. 39 per cent of tradesmens' children, 68 per cent of industrialists' and 87 per cent of children of professionals.

Conclusions

It is suggested that raising the standard of living would extend to more children the material and psychological environment favouring scholastic achievement.

30. Girard, Alain; Bastide, Henri; Pourcher, Guy. Enquête nationale sur l'entrée en sixième et la démocratisation de l'enseignement. *Population* (Paris), vol. 18, no 1, janvier-mars 1963.

La stratification sociale et la démocratisation de l'enseignement. *Population* (Paris), vol. 18, no 3, juillet-septembre 1963.

Country. France. *Date.* 1962. *Type of study.* Analysis of field study data.

Educational level. Primary and secondary.

Purpose of study. An analysis of factors influencing the post-elementary school destinations of a nation-wide sample of 20,770 students—with particular reference to evaluating the progress of " democratization " of secondary education.

Source of data. A stratified random sample of 1,163 schools designed to represent the entire population of public and private elementary schools in France.

Procedure. Phase I (June 1962). The principals of the schools selected were asked to provide the following information on all students completing the elementary cycle during 1961/62: their academic performance (grades and teachers' evaluations); family background (occupation of parents, etc.); family's wishes with regard to further education of child. Phase 2 (September 1962). Principals were asked to indicate what had happened to these students.

Findings

(a) *Principal destinations.* Approximately 20 per cent of the entire sample stayed behind to repeat a grade during 1962-63. Of those not repeating: 55 per cent had entered secondary school either general or secondary (25.4 per cent) or lycee (26.6 per cent); 42 per cent continued in primary schools (an essentially terminal system offering limited further education up until the minimum school leaving age); 2 per cent had abandoned the educational system altogether in order to go to work. [1]

(b) *Age and sex.* Pupils who left school for employment tended to be over-age; their average age was 14.2 years compared to 12.1 for the entire sample, 11.7 for those entering lycées and 12.6 for those staying in primary system. Destinations did not differ substantially by sex.

(c) *Regional differences.* Rate of entry into secondary school increased with population density:

	Percentage of students entering lycée, colleges, or general secondary
Rural areas	42 (14 lycée)
Villages and towns of under 10,000	57 (18 lycée)
Towns of 10,000-200,000 plus	64 (43 lycée)
Paris and environs	72 (33 lycée)

Regional variations in type of secondary education pursued were a function of: (i) availability of lycée facilities (relatively few in countryside and small towns); (ii) socio-economic structure of population. Incidence of early leaving was related inversely to population

1. Data such as this on students who leave school altogether are relatively rare in European studies.

density; thus less than 1 per cent of students from the Paris area dropped out to go to work compared to 3 per cent of those in rural areas.

(d) *Type of elementary school.* The rate of entry into secondary school was somewhat higher (especially with regard to lycées) among students from private elementary schools than among those from public schools. However, the type of elementary education received did not affect the likelihood of early leaving.

(e) *School success.* Academic aptitude and achievement (as rated by elementary school teachers on a 5-point scale) were closely related to student destinations:

Teachers' rating	*Destination*			
	Work	*Terminal primary*	*Secondary*	
			C.E.G.[1]	*Lycée*
	%	%	%	%
Excellent	1	2	20	13
Good	1	13	46	47
Average	15	38	28	34
Mediocre	38	33	5	5
Bad	45	14	1	1
	100	100	100	100

Almost half of those abandoning school for employment had been considered poor students. However, success in school proved to be in substantial measure a function of social class, a student's chances of being rated good or excellent increasing more or less directly with his father's SES (see also (g)).

(f) *Effect of retardation.* A special analysis of members of samples who had repeated the last grade of elementary school during 1961/62 indicated that the over-all pattern of destinations did not differ substantially among repeaters and non-repeaters. Nonetheless, repeaters were a good deal more likely to leave school to go to work, particularly in rural areas.

(g) *Family and SES.* (i) Access to secondary school was linked more closely to social status (as reflected by parental occupation) than to any other factor. The rate of entry to lycées and C.E.G. of children with parents in professional or upper-level management positions was approximately 90 per cent—twice as high as the rate for children of workers and three times that of children of agricultural workers. Those working-class students who did manage to get into secondary schools more often attended C.E.G. while students of high SES usually enrolled in lycées. (ii) Low status groups, both urban and rural, were markedly over-represented both among children leaving school to work and among those channelled into terminal primary courses. (iii) The effects of SES persisted regardless of grades. Thus, even the very important achievement of academic success (see (f)) did not necessarily guarantee entrance to secondary school, while high SES often helped to overcome the disadvantage of poor academic performance. (iv) The post-elementary choices made by students reflected closely the educational aspirations their families expressed for them. But the wishes of parents, like the academic success of their children, were very much a function of social status. (v) The advice of teachers regarding the course of study most appropriate for each student, supposedly based only on academic aptitude, appeared in actuality to be affected considerably by child's SES (i.e. to a greater extent than could be accounted for by the relationship between SES and grades). (vi) For the study population as a whole chances of attending secondary school were inversely related to the number of children in a student's family. But once again the influence of the factor varied according to SES. Coming from a large family was a definite disadvantage for a lower class child, whereas in high SES groups family size made hardly any difference.

Conclusions

Opportunities for secondary schooling have definitely improved, partly because of the expansion of general secondary education, but they are not distributed equitably. Differential access to secondary schools continues to be above all a result of the profound and pervasive influence of social milieu.

1. Collèges d'enseignement général.

31. England. Ministry of Education. *Early leaving.* A report of the Central Advisory Council for Education. London, Her Majesty's Stationery Office, 1954.

Country. England. *Date.* 1952-54. *Type of study.* Analysis of field study data.

Educational level. Secondary.

Purpose of study. (i) To investigate factors influencing the age at which boys and girls leave secondary schools which provide courses beyond the minimum school-leaving age (15); (ii) to determine the extent to which it is desirable to increase the proportion of those remaining at school until approximately age 18.

Source of data. A stratified random sample comprising 10 per cent of the whole population of grammar schools in England. The schools were stratified before selection by: type (provision for either or both sexes); status (maintained or direct grant); region.

Procedure. (i) The heads of the 120 schools selected were asked to complete questionnaires on the backgrounds, school records, potentialities and, where relevant, the reasons for leaving school of all pupils who had begun grammar school in 1946. Responses from 114 schools provided data on 8,690 pupils. Classified as " early leavers " were: those who neither completed the basis 5-year secondary course nor obtained a School Certificate (these " very early leavers " numbered 1,627, i.e., 18.8 per cent of the total sample); those who left after five years instead of following an advanced course. (ii) A second questionnaire elicited information from principals on the programmes and practices of each school and on employment opportunities in the surrounding area for school leavers of various ages. (iii) The above data was supplemented by obtaining the views of grammar school boys and girls on their school experience, reasons for leaving, etc., through questionnaires administered to: National Servicemen (N = 274); members of youth organizations (boys and girls) who had left grammar school at varying ages (N = 301).

Findings

(a) *Sex.* Boys tended to stay longer [1] in school and to do better academically than girls (e.g. 16.5 per cent of boys sampled left before completing the 5-year course compared with 21 per cent of girls). The greater propensity of girls to leave early was interpreted as a confirmation of the common belief that many parents attach less importance to their daughters' education than to their sons! The reasons for leaving most frequently mentioned by both principals and the girls themselves were: desire for independence and financial inability of family to keep them in school.

(b) *SES* (based upon father's occupation) and the influence of the home. Children of parents in semi-skilled and unskilled jobs were heavily over-represented among very early leavers:

Father's occupation	*Percentage of total sample*	*Percentage of very early leavers*
Semi-skilled	15.3	29.2
Unskilled	5.6	40.1

Findings further indicated that even when children from such backgrounds entered grammar school in the top selection group, their academic performance was much more likely to decline than that of fellow students with parents in professional and managerial occupations.

(c) *Academic ability.* Of those thought suitable (by heads of school) for following advanced sixth form courses, approximately 33 per cent of the boys and 39 per cent of the girls left too early to take such courses. Headmasters mentioned difficulty with school work as a factor in 17 per cent of the early leaving cases; however, among the members of youth organizations questioned, academic difficulties were mentioned as reasons for leaving by only 4 per cent of the boys and 3 per cent of the girls.

1. This difference persisted regardless of social class—except among very early leavers from professional/managerial backgrounds.

(d) *Financial considerations.* Shortage of money was seen by principals as affecting 11.1 per cent of boys leaving early and 18.5 per cent of the girls—among the leavers themselves, this reason was given even more frequently.

(e) *Influence of employment.* (i) The percentage of early leavers influenced by employment considerations (" chance of a good job which might not have been available later ") was as follows:

	Girls	*Boys*
	%	%
According to head of school	7.5	22.9
According to girls or boys themselves	12	45-53

(ii) The conditions of entry into many occupations did nothing to encourage a longer school life—indeed they seemed in effect to discriminate against older school leavers: craft apprenticeships were normally open only to boys between 15 and 17; office and clerical careers often failed to offer sufficient incentives—in terms of salary and/or grade—to enter at 18 rather than 16; most professions rarely offered enough inducement to older, more educated entrants to compensate for the delay in acquiring full professional qualifications caused by prolonging their education. (iii) In some areas, particularly in country districts, students were forced to choose between leaving school at 16 in order to get local jobs not available later or leaving the district itself in order to seek non-local opportunities.

(f) *Influence of school.* A high rate of premature leaving was more common in girls' and mixed schools than in boys' schools. It was suggested that the treatment by some schools of sixth form courses as very separate from the main five-year course might make the sixth form seem even more inaccessible to a child already hesitant about staying more than five years.

Conclusions

Of all the factors affecting early leaving, a child's home background was judged to be the most critical. It was suggested that the disadvantages of the semi-skilled and unskilled workers' children who were so heavily over-represented among very early leavers included not only such physical factors as overcrowded homes and inadequate heating or lighting, but also the social assumptions of their parents. While these working-class mothers and fathers had generally left school early themselves, they did not necessarily lack a sence of the value of education. But extended schooling could not be taken for granted by them as it was by those in professional occupations. And if it was not taken for granted by the parents, it could not be by their children.

Recommendations

There should be: legislation providing for payment of more adequate maintenance allowances to families with children in school up to any age; more boarding facilities to accommodate children whose progress is inhibited by adverse home conditions; expansion of facilities for work after school hours for non-boarding boys and girls who have poor working conditions at home; regular personal contact to be maintained by school with students' families; treatment of whole work of the school, including sixth form, as continuous; increased numbers of craft apprenticeships for 17- and 18-year olds; increased incentives to complete sixth form before entering clerical or professional occupations.

32 (83). Jackson, Brian; Marsden, Dennis. *Education and the working class.* London, Routledge and Kegan Paul, 1962.

Country. England. *Type of study.* Analysis of field study data.

Educational level. Secondary.

Purpose of study. To ascertain why relatively few working-class children (compared with many middle-class children) successfully complete the full grammar school course.

Source of data/procedure. (i) A sample of 88 working-class and 10 middle-class students drawn from pass lists (for Higher School Certificate and G.C.E. Advanced Level) at all grammar schools in an industrial city of 130,000 in northern England. (ii) A group of 12 working-class students who had left grammar school early. The subjects and their parents were interviewed (separately) in their homes from 5 to 14 years after the children had left grammar school.

Findings

(a) For the middle-class child and his parents, the system of values, demands and aspirations represented by the grammar school was already familiar and was very definitely felt by them to be susceptible of manipulation.

(b) This sense of integration with the system was accompanied by a shrewd awareness of its operation which had important concrete results. For example, a middle-class parent was far more likely than his working-class counterpart to choose a primary school that would prepare his child for the crucial eleven-plus exams and be willing to interfere at school on the child's behalf.

(c) The working-class child who succeeded at school under such circumstances tended to be atypical of his class. (i) The majority of such children came from the upper strata of the working classes. Over one-third of their parents had connexions with the middle class and were considered to be "sunken middle class" rather than truly working class. (ii) They were members of small families—more than one-third were only children. (iii) They lived in favourable, socially mixed districts and many had attended primary schools with a predominantly middle-class tone. (iv) Their parents, although possessing little education themselves, [1] placed a high value upon education and exerted considerable pressure upon their children to achieve in school. (v) With regard to the middle-class world and its values, parents were both aspiring and deferential and the same qualities were prominent in the school careers of their children. High academic aspirations were accompanied by a positive orthodoxy—a highly developed capacity for accommodation. These superadaptive children wasted little energy in clashing with the alien world of the grammar school; they quickly integrated themselves and indeed were frequently leaders and prefects at school.

Conclusions

Grammar schools represent a powerful institutionalization of middle-class values. The degree to which a child succeeds within this system depends upon the degree to which he is middle-class—either by origin or by assimilation.

33. MacPherson, John S. Selection in Scottish secondary schools. In: Halsey A.H. et al., eds. *Education, economy and society.* Glencoe, Ill., The Free Press, 1961.

Country. Scotland. *Date.* 1947. *Type of study.* Analysis of field study data.

Educational level. Secondary.

Source of data/procedure. A seven-year follow-up of a representative sample of 1,208 children from the 1947 Scottish Mental Survey of all children born in 1936. A group test score, an IQ and various sociological data were recorded for each child in 1947; subsequent information was obtained through home interviews and questionnaires filled out by heads of schools.

Findings

(i) Of the entire sample, only 12.4 per cent completed the 5-year secondary course and only 6.2 per cent attained good leaving certificates. (ii) Academic success was found to be a function of the interaction of the following variables: high IQ, success in courses, higher occupational classes of fathers and certain personality traits (perserverance, conscientiousness, will to do well). (iii) Relative influence of IQ and SES: for boys from

1. A subsample of 10 working-class families had less than one-sixth of the schooling (measured in units of secondary and higher education) possessed by the 10 families in the middle-class sample.

a blue-collar background the likelihood of completing the 5-year secondary course was 40 per cent for those with an IQ of 120 or more and 20 per cent for those with an IQ of under 120; the likelihood for boys from a white-collar background was 66 per cent for those with an IQ of 120 plus and 50 per cent for those with an IQ of under 120.

Conclusions

In the light of the complex combination of factors required for academic success, it is suggested that wastage in the secondary schools is overestimated, i.e., that the percentage of early leavers who would have attained good leaving certificates had they remained in school is less than is generally thought to be the case.

34. Netherlands. Central Bureau of Statistics. A study of school careers in the V.H.M.O. In: *Analysis of student performance*. The Hague, 1965. (Statistical investigations on education and leisure, 1)

Country. Netherlands. *Date*. 1949-59. *Type of study*. Analysis of field study data.

Educational level. Secondary (grades 1-6).

Purpose of study. To determine what factors influence the duration of study beyond primary school.

Source of data/procedure. A longitudinal analysis of a cohort comprising all pupils (N = 15,052) entering the first grade of V.H.M.O. (grammar) schools in 1949. At the beginning of the school year 1949-50 all grammar schools were asked to collect certain information about each entering pupil: his sex, age on entering, SES (father's occupation), rural/urban residence and previous schooling. Each autumn for the following ten years (i.e. until the last pupil of the generation had left school) these records were updated with regard to the school-careers of the cohort, i.e. repetition, promotion, transfer [1] and dropping out.

Findings

(i) Nearly one-half of the entire 1949 generation failed to complete their studies. The incidence of early leaving was equal among both sexes. (ii) Previous schooling and geographical environment (town vs. rural area) proved to be of little importance in determining school success. (iii) The following table indicates some degree of association between SES and persistence in school:

Student's social status (father's occupation)	*Leaving early*		*Finishing studies*	
	boys	*girls*	*boys*	*girls*
	%	%	%	%
Higher	39	39	61	61
Middle				
salaried	43	45	57	55
independent	54	54	46	46
Lower				
clerical personnel	46	54	54	46
labourers	55	57	45	43

However, more detailed breakdowns demonstrated that the effect of SES upon chances of obtaining a leaving certificate varied according to whether or not students repeated grades along the way: among non-repeaters, higher SES did not appear to provide any particular advantage—the same proportion (approx. 22 per cent) of boys from each social grouping finished school; among those who did suffer retardation, however, chances of eventually completing their studies increased with social status—thus 40 per cent of upper-class repeaters gained their certificates compared with only 23 per cent of working class repeaters (it is suggested that this was due principally to the fact that upper class students were less often taken out of school after doubling a class, perhaps because their families were in a better position to finance the extra expenses incurred by

1. In the case of students transferring to other V.H.M.O. schools, the records were continued by their new schools.

having to repeat a year). (iv) Almost the entire group (95 per cent) of early leavers had made insufficient progress in school by the time they left and/or had repeated at least one grade. (v) The age at which students started grammar school significantly affected their subsequent careers—the younger they were, the better their chances were of completing their secondary studies. Only about 20 per cent of children entering at age 11 left school prematurely compared with about 50 per cent of those beginning at 13 (the most usual age) and some 80 per cent of those not starting until 15. This effect of age persisted regardless of sex or grade retardation.

35 (88). Schwartzweller, Harry K. Educational aspirations and life chances of German young people. *Comparative education* (Oxford), vol. 4, no. 1, November 1967.

Country. Federal Republic of Germany. *Date.* 1965. *Type of study.* Analysis of field study data.

Educational level. Elementary and secondary.

Purpose of study. An analysis of " differentials in educational life chances " among German students, with special emphasis on antecedents and effects of the crucial educational career decisions made at 10 or 11 years of age regarding the level of schooling (elementary vs. secondary) to be pursued.

Source of data. A sample of 2,535 students (aged from 14 to 17) from three regions of the Federal Republic Germany which were selected to represent three different types of socio-economic circumstances.[1] Within each area, pupils from two highly differentiated school systems were surveyed: (i) secondary (*Realschule* or *Gymnasium*), oriented primarily toward attainment of *Abitur* (the prerequisite to higher education at university or higher technical school); (ii) elementary non-*Abitur* oriented, leading generally only to trade school apprenticeships or to 2-3 years technical/academic training at sub-*Abitur* levels.

Procedure. Questionnaires completed by the sample provided data on family SES (based on father's occupation), circumstances surrounding the choice of elementary or secondary school, and students' educational and occupational aspirations.

Findings

(i) Socio-economic status proved to have been a major determining factor in the choice between secondary and elementary school: 68 per cent of the boys and girls entering secondary schools came from " upper elite " or " middle white collar " families compared with 31.1 per cent from " lower and middle manual worker " backgrounds; of those entering the elementary system, on the other hand, 82.6 per cent were children of manual workers and only 17.4 per cent came from elite and white-collar groups. (ii) Awareness that the secondary/elementary choice had existed was much lower among elementary school students—nearly half of them (against only 4 per cent of secondary students) felt that the question of seeking admission to secondary school had never arisen. (iii) Elementary students who had been conscious of a decision-making process frequently felt that they had not been involved in it at all (only a " negligible " percentage of secondary school students expressed similar feelings).

Conclusions

See entry in section on *Consequences*.

36 (90). Abernethy, David B. The unemployment market: perceptions of Southern Nigerian school children. Stanford University, n.d. [mimeo].

Description of study. See *Consequences* entry.

1. The regions were: a heavily industrialized region; a wealthy agricultural region; and a relatively underdeveloped region, both agriculturally and industrially.

Findings

Termination of education after primary school for the majority of pupils is attributed to: (i) uneven educational expansion—secondary schools are simply unable to absorb the vastly increased output of primary leavers resulting from the introduction of universal primary education in Nigeria; (ii) imbalance between education expansion and economic growth—slow rise in the number of jobs; (iii) non-egalitarian nature of post-primary education—in secondary schools (where, unlike free primary schools, individuals must bear the bulk of costs) wealth is introduced as a recruitment factor.

37. Adler, Chaim. Secondary school as a selective factor, from a social and educational point of view. Ph.D. dissertation. Hebrew University (Jerusalem), 1945.

Country. Israel. *Date.* 1959-60. *Type of study.* Analysis of field study data.

Educational level. Secondary (grades 9-11).

Purpose of study. To investigate social mechanisms, other than ascriptive variables such as social class and ability, responsible for early school leaving. Particular attention was given to an examination of the influence of the school as a social institution and of other social systems such as family and peer groups.

Source of data/procedure. A two-phase survey of Jerusalem high school students. (i) The first stage was the completion of a 115-item questionnaire on all pupils in grades 9, 10 and 11 in full-time academic high schools in the summer of 1959; a total of 1,017 questionnaires (of a possible 1,278) were completed. (ii) Hypotheses based on data collected were tested in the second stage several months later when 174 of the study group had dropped out. Half of these early leavers were compared with a control group of stay-ins matched on ability (as indicated by scholastic standing in three subjects) and social class.

Findings

(i) Early school leavers differed from those who continued in school in that they participated more in peer group activities; however, they lacked influence and standing within such groups and had fewer intimate relationships within them. (ii) Early leavers tended to have fewer personal relationships with teachers than students who stayed on; their relationships with their families were also less satisfactory. (iii) Affective orientation toward high school was characteristic of dropouts. They also lacked positive attitudes toward learning. (iv) Both very strong and extremely inhibited mobility aspirations were found to be related to dropping out. (v) Future plans of early leavers were vague and tended toward short-range planning. The dropouts lacked confidence in their ability to realize future plans. (vi) Parents of dropouts were likely to be less permissive than those of stay-in students.

Conclusions

With regard to reducing the incidence of dropout, the principal manipulable variable is the school system itself. It should initiate both quantitative and qualitative changes designed to accommodate a wider range of student needs and orientations.

38. Cameron, John. Wastage in Tanganyika with special reference to primary schools. *Teacher education* (London), vol. 6, no. 2, November 1965.

Type of study. Discussion.

This article is in part a critique of Sidney Collins' report on wastage (see following summary). The validity of Collins' methods and findings are brought into question and it is argued that Collins much exaggerates the influence on wastage of high tuition fees, migration to urban areas and inadequate government educational policies. In the second section (dealing with the problem of wastage in more general terms), Cameron warns

against over-rating cultural differences as causes of dropping out. Stressing the similarity of children everywhere, it is suggested that a major cause of school desertion common to both developed and developing countries is " the revolt of the young against what is meaningless, dull and uncomfortable in their education ". Legal enforcement of school attendance is recommended as a crucial weapon in the reduction of large-scale wastage at the primary level.

39. Collins, Sidney. The social and economic causes of wastage in schools and other educational institutions in Tanganyika. *Teacher education* (London), vol. 5, no. 1, May 1964.

Country. Tanzania. *Date*. 1961. *Type of study* Analysis of field study data.

Educational level. Primary, middle and secondary (technical).

Source of data. (i) A survey of primary and middle schools in five Tanganyikan provinces; (ii) Questionnaires administered to a 25 per cent sample of students who dropped out of evening classes at the Dar-es-Salaam Technical Institute.

Findings

(i) Causes of wastage in primary and middle schools: inability to pay fees; student's obligations to family and land; parental attitudes, i.e. assigning a low value to education—in some pastoral areas, cattle were viewed as a better and more prestigious investment than education for children, particularly daughters; the high rate of migration from less developed rural areas to towns and industrial centres; early marriage; illness and malnutrition.

(ii) Factors associated with withdrawal of secondary level evening students: prohibitive costs of tuition, books, transportation; demands made by student's family; lack of suitable place to study; difficulties in getting hold of necessary textbooks; absence due to leisure activities; illness or tiredness after working all day; student dissatisfaction with inefficent teaching methods and lack of guidance.

40 (95). Elkan, Susan. Primary school leavers in Uganda. *Comparative education review* (Oxford), vol. 4, no. 2, October 1960.

Description of study. See *Consequences* entry.

Findings

(i) Tribal affiliation did not relate strongly to the likelihood of a child's leaving school after primary grades 5 and 6. It is suggested that membership in a minority tribe (generally to be equated with economic disadvantage) was a powerful determining factor at an earlier stage, i.e. that it tended to prejudice the child's chances of entering school at all. (ii) Of the 206 children who left the educational system altogether, 119 had failed either the Primary Leaving Examination after grade 6 or the end-of-grade examination after grade 5, 42 had passed their examinations and 45 left school before the examinations. Viewed differently, of the 731 children in the sample who passed their examinations, only 6 per cent left school compared with 26 per cent of those who failed. (Examination failure was argued to be a function not merely of low innate intelligence but of multiple factors including poor physical condition of children, disadvantageous home conditions, inferior teaching, etc.) (iii) There was no indication that children abandoned school for economic reasons, i.e. their labour represented an income to the family.

41 (96). Foster, Philip J. *Education and social change in Ghana*. London, Routledge and Kegan Paul, 1965. Chapter VIII.

Country. Ghana. *Date*. 1961. *Type of study*. Analysis of field study data.

Educational level. Secondary.

Purpose of study. To investigate patterns of achievement, selection and recruitment in Ghanaian secondary schools.

Source of data. Questionnaire administered to a sample of 963 fifth form students (775 boys and 188 girls) from 23 schools representing a 50 per cent stratified (by fifth form size) random sample of public secondary schools.

Findings

(i) A certain amount of ethnic selection appeared to be at work (particularly for girls), favouring enrolment of southern urbanized ethnic groups. However, these apparent ethnic inequalities were seen as explicable in terms of other variables described below. (ii) Recruitment persistently favoured students whose fathers belonged to higher levels of occupational and educational hierarchy: 40.3 per cent of sampled students' fathers were in white collar occupations (these occupations represented 6.9 per cent of all adult males in Ghanaian labour force) 32.5 per cent of fathers were farmers and fishermen (62.8 per cent of adult male labour force); 58 per cent of students' fathers had more than primary education compared with 14.9 per cent of adult male population. (iii) Urban origin correlated positively with access to secondary schools.

Conclusions

In spite of the correlation between parental occupation and education and access to secondary school, Ghanaian secondary schools still draw upon a relatively wide segment of the population and function as highly effective channels for social and occupational mobility.

42. International Labour Office. Interim report on education in a rural area of Western Nigeria. Ibadan, ILO Mission, 1967. (Fact-finding report on the ILO Pilot Project Area, Education section)

Country. Nigeria. *Date.* 1966. *Type of study.* Analysis of (i) field study data, (ii) aggregate data.

Educational level. Primary (grades 1-6).

Source of data. A survey of primary school wastage and other aspects of education in a rural area of Western Nigeria (undertaken in connexion with an ILO pilot project for the United Nations Development Programme).

Findings

(a) *Wastage patterns and population.* Rate of wastage was inversely related to village size. The over-all wastage for the primary cycle was estimated as follows: in villages of less than 7,000 people, 84.9 per cent; in those of 1,000-2,000 people, 63.2 per cent; in those of 2,000-5,000 people, 52.8 per cent. These figures compared with an over-all wastage rate of 47.2 per cent in towns of over 5,000 and 20.0 per cent in Ibadan city.

(b) *Teacher-related causes of rural wastage.* (i) Poorer teachers tended to be relegated to village schools—the better qualified teachers were concentrated in towns and cities. (ii) Teachers often lacked sense of commitment to their work: 56.9 per cent of village teachers surveyed indicated that they would prefer to take another job at the same salary rather than continue to teach. The main reasons for dissatisfaction with teaching were: lack of promotion, lack of interest in the work and poor conditions of service. (iii) 69.5 per cent of teachers surveyed never stayed more than one or two years at any primary school. Village schools suffered most from this rapid turnover.

(c) *Other reasons for leaving school.* Cost of education; loss of child labour to parents; lack of incentives to finish education (scarcity of jobs for primary leavers); children's dislike of severe discipline in schools; teachers' interest in maintaining a high percentage of passes, resulting in deliberate discouragement; parental discouragement at children's lack of progress; poor health.

43. Kaypaghian, Fiammetta P. A study of elementary school girl dropouts and non-dropouts in Addis, Ababa, Ethiopia. Ph.D. dissertation. Harvard University, 1960.

Country. Ethiopia. *Date*. 1957-58. *Type of study*. Analysis of field study data.

Educational level. Primary (grades 6-8).

Source of data/procedure. (i) A questionnaire measuring attitudinal and other variables was administered to a sample of 255 elementary school girls (in grades 6, 7 and 8) from three randomly selected public schools; (ii) the following autumn, after 208 of the sample had returned to school and 47 had dropped out, 12 hypotheses regarding differential characteristics of dropouts and stay-ins were tested against questionnaire results.

Findings

(i) Dropouts were significantly more likely than non-dropouts to: hold more traditional family values; have a less modern definition of the female role; have a less modern attitude toward education; conform to traditional Ethiopian customs; have poor family adjustment; suffer from poor health; feel some financial need. (ii) On the other hand there was no significant association between dropping out and: high SES [1]; child labour (working for family); absence or presence of clear education objectives; school adjustment (as reflected in positive attitudes and secure, happy relationships); transfers from one school to another.

Conclusions

Manipulation of school factors such as curriculum content, scholarship aid, etc. is recommended as a solution to the dropout problem.

44. Kazamias, Andreas M. *Education and the quest for modernity in Turkey*. Chicago, University of Chicago Press, 1966.

Country. Turkey. *Type of study*. (i) Primary and secondary analysis of field study data; (ii) analysis of aggregate data.

Educational level. Primary/secondary.

Source of data. A study of educational modernization in Turkey, drawing upon earlier research material and aggregate data as well as a new case study of secondary school students.

Procedure. (i) Examination of various studies (Robinson, Eastmond et al.) and statistics (principally Ministry of Education) provided insights into patterns of attrition in both primary and secondary cycles. (ii) A special survey was made in 1962-63 of 5,500 secondary students at 93 *lise* (general secondary) schools (public, private, foreign-operated and minority-operated) chosen from lists made available by the Ministry of Education. In order to create a profile of students at this relatively advanced educational level, information was collected (by questionnaire) on their social background as reflected in father's occupation, education of parents and place of residence.

Findings

(a) *Patterns of attribution*. (i) In the five primary grades, dropout rates were higher among girls—of the pupils enrolled in grade 1 in 1953-54, 52 per cent of the boys were enrolled in grade 5 in 1957-58 against only 34 per cent of girls [2]; this situation reversed itself in middle school (grades 6-8) and *lise* (grades 9-11) where girls had greater staying power. (ii) Wastage was considerably higher in rural areas—in village schools, the 1957-58 enrolments in grade 5 represented only 35 per cent of the original cohort who

1. Hypothesis had been that girls of high social status did not need education for purposes of advancement or prestige.

2. It would seem that grade retardation as well as dropout is a factor in such statistics.

had started school five years earlier, while in urban schools, the percentage of the original grade 1 students reaching grade 5 was nearly twice as great (69 per cent). It is suggested that rural children have little motivation to persist with their schooling, because extensive education is not highly valued among villagers who tend to consider it irrelevant. Lack of middle school and *lises* in rural areas means that for many children the only way to continue beyond primary school is to go to a town or city. This alternative is often prohibitively costly in terms of actual expenditures for child's travel and maintenance and labour foregone by families who need child's help at home.

(b) Lise *case study*. Urban, white-collar children, whose parents were also well-educated, were over-represented in the *lises*, particularly in the non-public ones. (i) Of the sampled students 44 per cent had fathers in professional and official (government, administrative and clerical) jobs, although such occupations engaged only 5.5 per cent of the general male population; farmers, fishermen and hunters comprised 62.3 per cent of the male population, but less than 10 per cent of *lise* students' fathers were in these occupations. (ii) Although more than half of the students' fathers had secondary or higher education (meaning that they were definitely an elite group as compared with the general population), a substantial number (20 per cent of entire sample, 32 per cent of public school children) had fathers with only incomplete elementary education or with no formal schooling at all. (iii) Educational and occupational levels of girls' parents tended to be higher than those of boys' (reflecting the continuing lag in educational opportunities for any but the most privileged girls).

Conclusions

Children of urban, white-collar, well-educated parents have the best chances for a *lise* education. However, there are significant variations in this elitist selection process, particularly in the public schools.

45. Maleche, A.J. A study of wastage in primary schools in Uganda. Kampala, East African Institute of Social Research, 1960. [mimeo]

Country. Uganda. *Date*. 1958-59. *Type of study*. Analysis of field study data.

Educational level. Primary (grades 5 and 6).

Source of data/procedure. A survey, undertaken by the East African Institute of Social Research of children leaving school after primary grades 5 and 6, with special emphasis on those dropping out of the educational system completely. The sample comprised a total of 1,238 students (including 205 dropouts) from randomly selected schools in four districts of Uganda. Dropping out and continuation in school were analysed in relation to age, tribe and school performance; with the help of former teachers and classmates in locating the children in the sample, a brief follow-up study was made of each case through informal interviews with parents, relatives, etc.

Findings

(i) On the whole, children who dropped out were a year or two older than those who remained in school; (ii) the major tribe of each district was predominant among both dropouts and stay-ins; (iii) the majority of those who dropped out had failed their examinations; (iv) the follow-up revealed further factors associated with dropping out, i.e., shortage of money for fees and school uniforms, parental indifference to education, especially for girls, shortage of post-primary education facilities, and a desire to earn " quick money ".

46. Maleche, A.J. Sociological and psychological factors favouring or hindering the education of African women in Uganda. Kampala, East African Institute of Social Research, 1961. [mimeo]

Country. Uganda. *Type of study*. (i) Analysis of aggregate data; (ii) discussion.

Findings

Educational wastage among girls is associated with: (i) shortage of trained women teachers, due mainly to precipitate termination of teaching careers by marriage, which means that the " special needs " of girls are not satisfactorily fulfilled, furthermore the neglect of girls in mixed classes taught by men leads to discouragement with schoolwork; (ii) an educational system which favours boys; (iii) the parental attitude which regards education for girls as a poor investment, believing that a family will reap better returns from educating its sons and, furthermore, that education makes girls discontented and immoral; (iv) disadvantageous home conditions such as the excessive demands made on child's time and energy by home duties before and after school, the inadequate facilities for studying, and the undernourishment and lack of sleep common to children of large and improverished families; (v) the cultural gap between home and school—the average home is more likely to neutralize rather than supplement education received in school; (vi) the limitation of out-of-school associations to mothers and girl friends who provide no intellectual stimulation; (vii) early conditioning to an inferior status which inhibits aspirations and achievement.

Conclusions

The strongest incentive for change in the educational position of the African girl is the example being set by the elite of literate women. By their outlook and achievements they are establishing a model for the future.

47. Angles, Cipriano. La deserción escolar y sus causas según el inventario de la realidad educativa del Perú [Educational wastage and its causes according to an inventory of the educational factors in Peru]. *Educación* (Lima), tomo 24, núm 23, 1960; tomo 25, 1961.

Country. Peru. *Type of study.* Analysis of (i) field study data and (ii) aggregate data.

Educational level. Primary.

Purpose of study. The analysis of social, economic and psychological factors which generate early school leaving during the primary cycle.

Source of data. (i) A survey of 11,422 primary schools (in 1,470 districts) having a total dropout population of 81,641 for 1956—teachers in each school were asked to indicate the causes of dropping out among their pupils. (ii) Correlation of regional dropout rates with selected demographic variables.

Findings

(i) The single reason for early leaving most commonly given by the teacher was work; 19.07 per cent of the dropouts left school to enter employment, presumably because the economic circumstances of their families left them no other choice. (ii) Illness accounted for another 14.70 per cent of school desertion—diseases such as smallpox, scarlet fever, amoebic dysentery and tuberculosis caused children to leave school for fear of contagion as well as for actually becoming sick; in jungle areas, illness was the principal cause of early leaving. (iii) Change of residence and/or change of school accounted for 16.63 per cent of the dropouts. This was seen at least in part as a function of a high rate of internal migration in Peru—from country to city. The transplanted children of migrants were often confronted with impossibly overcrowded urban schools plus the necessity of travelling through dangerous neighbourhoods to reach school—both factors which of course worked against persistence in school. (iv) 9.90 per cent of the dropouts left because of absences [1] in excess of the maximum allowed by law (a student who is out of school more than 30 per cent of the time may not take the final course examinations). (v) Death was the reason for 1.40 per cent of dropout. (vi) Analysis of dropout by regions yielded some evidence of an association between low population density and high levels of school

1. This is, of course, merely an immediate cause.

desertion. The great distances which children were obliged to travel to classes were a major problem in such sparsely populated areas. (vii) An examination of the possible " other causes " (38.3 per cent of dropouts) showed both school and non-school factors. The school-related factors were: static curricula and poor teaching methods—both ill-suited to the interests and abilities of pupils; inadequately trained and poorly motivated teachers—50 per cent of primary school teachers in Peru had no professional training and 35 per cent had not gone beyond primary school themselves; lack of physical facilities and overcrowding of existing schools, e.g. in the Sierra region where desertion rates were very high, places were unavailable for 53 per cent of those who enrolled in primary school; ill-treatment of students by teachers through excessive discipline and through a tendency to look down on those of lower socio-economic status; failure to standardize promotion examinations. The home-related factors were: broken homes and unsatisfactory relationships with parent; illegitimacy—many schools at post-primary level refused to admit illegitimate children; negative attitude of parents toward education produced by wretched school conditions; cultural tendency to favour males—the education of girls was not considered as important.

48 (105). Consejo federal de inversiones. La deserción escolar en la Argentina [School wastage in Argentina]. Buenos Aires, 1964.

Country. Argentina. *Date*. 1950-60. *Type of study*. (i) Analysis of aggregate data; (ii) discussion (cf. Consequences).

Educational level. Primary.

Source of data. A survey of primary school wastage (based on Ministry of Education statistics) in all Argentine provinces. Although the principal orientation is quantitative, a tentative analysis of correlation coefficients between levels of wastage and selected educational and socio-economic indices is included.

Findings

(a) *Sex*. The dropout rate was consistently higher among males in all parts of the country, irrespective of degree of urbanization and development. The suggested reasons are: (i) that boys were more likely to be pulled out of school early because they were needed in the labour force; (ii) that girls enrolling in first grade were already a more select group than their male counterparts by virtue of having overcome considerably more obstacles just to go to school at all—their chances of success, therefore, are better from the start.

(b) The incidence of school desertion was lowest among private school students, with 89 per cent reaching grade 6 (presumably a reflection of above-average SES of children in such schools).

(c) *Structure of education system*. (i) The level of wastage did not relate significantly to teacher-pupil ratio or expenditure per student; (ii) a significant association was evident, however, between lower wastage rates and the greater number of teachers per school and the greater number of students per school. This relationship was seen as demonstrating the effect of urbanization—the superior efficiency of urban schools, however, being not merely a function of " greater accumulations of persons " but of the operation of a complex of factors favouring educational achievement.

(d) *Demographic and economic structure*. (i) The dropout rate correlated negatively with gross per capita product livestock, agriculture and industry. This relationship was strongest in the urban/industrial sector, where the need for educated people is greatest. Industrialization thus precipitates a reduction in wastage; on the other hand, a high educational level can function as an antecedent of industrialization. (ii) The dropout rate increased as infant mortality rate (considered an indicator of level of social development) went up. Low educational levels and high mortality thus acting as mutually reinforcing components of the vicious circle of social under-development.

Conclusions

No simple linear relationship between the volume of educational expenditure and the efficiency of education system (i.e., reduction of wastage) can be assumed. Educational underdevelopment is so intimately related to socio-economic factors that only a broad, integrated approach to the entire configuration of problems can be useful.

49. Hamuy, Eduardo. *El problema educacional del pueblo de Chile* [The educational problem of the people in Chile]. Santiago, Editorial del Pacífico, 1961.

Country. Chile. *Date*. 1953-61. *Type of study*. Analysis of (i) aggregate data and (ii) field study data.

Educational level. Primary (grades 1-6) and middle school (1st year).

Source of data/procedure. A large-scale study of non-enrolment and primary school wastage in four Chilean provinces. Data were compiled (from census figures, enrolment lists and school principals) on 52,800 15-year-olds and an analysis was made of the relationship of several variables (economic level, rural/urban residence, sex, etc.) to premature school leaving. The results were adjusted against a more intensive analysis (using personal interviews) of 683 of the cases.

Findings

(a) *Factors not associated with early leaving*. These were: sex; size of school population; type of primary school (public/private).

(b) *Variables associated with early leaving*. (i) Wastage increased as population density declined. Students in urban schools had a significant and consistent advantage over those in rural schools with regard to their chances of completing the primary cycle: in the city of Santiago, 41.1 per cent of students starting school reached the sixth grade compared with 13.5 per cent of those in the rural areas of Santiago province. (ii) The chances of dropping out increased in direct proportion to the age of the student upon starting school: of those starting at 6 years of age, from 40.4 to 57.8 per cent got as far as grade 6; of those starting at 9 years of age, from 14.4 to 26.8 per cent reached the same level; of those starting at 13 years of age or over none. (iii) According to the school principals, children from low SES families were more likely to leave school early. In Santiago province, for example, 79.8 per cent of the entering students from high-level families reached grade 6 compared with only 27.8 per cent of those from low-level economic backgrounds.

(c) *Further manipulation of the age, residence and SES factors*. This was conducted in order to investigate possible interactions. It was found that: (i) a positive correlation between age on entering and likelihood of leaving early persisted regardless of variation in the urban/rural factor; (ii) while the effect of family SES was not upset by variation in age factor, it was significantly altered by manipulation of the residence variable; thus, it was possible in some cases for retention rates to be higher among low SES urban students than among middle SES rural ones.

Conclusions

The correlations revealed by the study between school desertion and variables considered to be functions of social position (economic level and area of residence) are interpreted as confirming the following broad theory: in any underdeveloped country, poor enrolment and large-scale desertion are the inevitable consequences of an inegalitarian social structure in which education is of marginal social and economic utility for the great majority of the population.

50 (106). Kahl, Joseph A. *The measurement of modernism: a study of values in Brazil and Mexico*. Austin, Texas, University of Texas Press, 1968.

Description of study. See *Consequences* entry.

Findings

(i) The father's SES was the best single predictor of a man's educational attainment:

Occupation category of father	*Average education of respondents* [1]
Low manual	1.5
High manual	2.4
Low non-manual	2.8
High non-manual	3.8

(ii) The respondents' perception of educational goals held for them by their fathers appeared to be significantly related to their actual educational achievement. The amount of education received increased with " perceived pressure " from fathers, except among sons of high non-manual fathers. (iii) The size of the town in which a man grew up exerted considerable influence on the amount of schooling he obtained. Those raised in large cities (100,000 or over) had a distinct educational advantage.

51. Kimball, Solon T. Primary education in Brazil. *Comparative education review* (New York), vol. 4, no. 1, June 1960.

Country. Brazil. *Type of study*. Discussion.

The tremendous wastage in Brazilian primary schools (less than 20 per cent of children who enrol in first grade complete the four-year primary cycle) is attributed to the following factors.

(i) Deficiency in number and professional training of teachers: only 55 per cent of primary school teachers (in the entire country) are normal school graduates; primary teachers are often married women whose family obligations take precedence over those of the school.

(ii) Implicit philosophy that it is desirable to eliminate, as early as possible, students who show no aptitude for academic achievement; the system favours those who will make the best candidates for secondary school and university—it is not interested in making primary education effective and meaningful for the others.

(iii) Factors related to class: lower class children are markedly deficient in the verbal skills which have been found to correlate highly with success in school—over-academic orientation of primary schools favours upper class children who generally have greater verbal facility; critical attitude of middle class teachers toward lower class pupils.

(iv) The system of school organization which permits frequent changes in teachers.

(v) Negative home environment: parental indifference, failure to provide incentives for school achievements, lack of assistance with homework.

52. Lunazzi, José M. *Deserción escolar y analfabetismo* [School wastage and illiteracy]. La Plata, Universidad Nacional de La Plata, 1940.

Country. Argentina. *Type of study*. (i) Analysis of aggregate data; (ii) discussion. *Period covered by statistics*. 1923-39.

Educational level. Primary (grades 1-6).

Source of data/procedure. A survey of wastage in the public primary schools of the province of Buenos Aires, using provincial statistics as a basis for a profile of attrition patterns for 1923-39. While the approach is primarily descriptive, considerable attention is given to a discussion of possible causes for dropping out.

Findings

(a) *Descriptive*. (i) Sex was not significantly related to dropping out. (ii) Location of schools appeared to be directly related to wastage, with rural schools having the highest

1. Educational code: 1 = incomplete primary; 2 = complete primary; 3 = incomplete secondary; 4 = complete secondary; 5 = post-secondary.

losses. For instance, in 1938, 7.74 per cent of students in urban schools reached grade 6 compared with 0.29 per cent in rural schools. (iii) Delayed enrolment and high rate of repetition resulted in large numbers of over-age children in each grade. This extreme heterogeneity with regard to age was inimical to effective schooling and, therefore, an important cause of wastage.

(b) *School-related factors associated with school desertion.* (i) The general orientation of school i.e. the relevance of its curriculum and methods in terms of cultural, societal and parental ideals and goals, and the extent to which it succeeds in making schooling a positive experience for the student. (ii) The physical condition of the school and the distance which student must travel to reach it. (iii) The high percentage of schools comprising less than the full number of primary grades—particularly in rural areas. (iv) Scheduling of school which conflicts with other aspects of child's life—home duties, etc. (v) Unsatisfactory relationships with fellow students. (vi) Burden of expenditure for clothing for school, textbooks, etc. (vii) Failure in school. (viii) The frequent cancellation of classes due to absence of teachers or for insignificant holidays.

(c) *Family-related factors associated with school desertion.* (i) Chronic migration which repeatedly interrupts child's schooling. (ii) General depression of home environment created by harsh struggle for survival—constriction of parental outlook, bitterness, hostility. Often included is a negative attitude toward education for their children. (iii) Lack of parental confidence in the school and its teachers.

(d) *Other factors.* (i) Inability of child to adapt himself to social and academic demands of school; (ii) illness; (iii) high mortality rate among school-age children in some areas.

Conclusions

Any attempt to reduce wastage must give consideration to all of the above factors. However, it is particularly important to establish a closer, more positive relationship between home and school.

53. Puerto Rico. Camara de representantes. Comisión de instrucción. Estudio sobre deserción escolar [1] [Study on educational wastage]. In: *Estudio del sistema educativo.* Rio Piedras, Universidad de Puerto Rico, 1960. Vol. I, p. 921.

Country. Puerto Rico. *Date.* 1957-58. *Type of study.* Analysis of field study data.

Educational level. Primary (grades 1-6), intermediate (grades 7-10).

Purpose of study. To identify factors contributing to early school leaving during elementary and intermediate cycles in both urban and rural areas.

Source of data. (i) A " representative " sample of 634 public school dropouts [2] predominantly from agricultural and blue-collar families, drawn from six school districts which had the highest wastage rates the previous year and also represented the island geographically. (ii) A control group of 586 in-school students matched with the dropouts on: age, sex, grade, economic status and residence (urban/rural).

Procedure. Through interviews with children (five months after leaving school) and parents (as well as with some teachers) in both experimental and control groups, data were obtained on 46 variables which were analysed for possible relationships to school desertion.

Findings

(a) *Non-significant factors.* There was no relationship whatsoever between dropping out and the following variables: mother's age; father's education; size of family; source

1. This same study treated by I. Rodriquez Bar in " Deserción escolar: hallazgos sobresalientes y algunas interpretaciones ", a report given at a Workshop on Services for Children and Youth in Puerto Rico in May 1962.

2. Apparently middle-of-the-year dropouts only.

of income; balance between family income and expenditures; number of schools attended; number of grade failures; interest in specific vocational courses.

(b) *Significant factors.* (i) Family: both urban and rural dropouts were more likely than stay-ins to have poorer relationships with their families (brothers and sisters as well as parents) and a higher incidence of incapacitating illnesses (tuberculosis, alcoholism, insanity) among members of family; in urban areas, dropouts suffered more than stay-ins from: overcrowding in the home, conditions causing imbalance in the normal rhythm of family life (e.g. lack of income, unemployment, imprisonment, hospitalization, emigration), and family problems such as parental desertion—twice as many dropouts had been abandoned by their fathers; level of father's education did not prove to be associated with leaving at all. However, in rural areas mothers of dropouts tended to be less educated—42 per cent of them (against 26 per cent of stay-ins' mothers) had never been to school. (ii) Delinquency: substantially more dropouts than stay-ins had had problems with the police—particularly in urban areas. (iii) School experience: dropouts were generally from 1 to 2 years over age for their grades; they also tended to have poorer attendance records and lower levels of class participation than stay-ins; and regardless of area or educational level, dropouts were consistently characterized by greater dissatisfaction with school and lower academic aspirations than students who had continued in school.[1]

54. Vasquez, Judith, et al. *Ausentismo y deserción escolares: contribución docente para la reforma educativa ecuatoriana* [Absenteeism and school wastage: the teacher's contribution to the educational reform in Ecuador]. Cuenca, Editorial Casa de la Cultura, 1965.

Country. Ecuador. *Type of study.* Discussion

In this collection of brief papers presenting the opinions of eight primary school teachers, suggest causes for poor attendance and school desertion include: (i) Negative parental attitudes toward education, ranging from indifference to hostility and stemming from the parents' own lack of schooling (one author asserts that most peasants are " irresponsible semi-illiterates "), their concept of education as irrelevant, and resentment at losing child's help with agricultural and domestic duties. (ii) Seasonal demands of cultivation and livestock-raising in an economy where child labour is taken for granted. Several teachers mention the difficulties caused by the coincidence of the beginning of the school year with the period of sowing crops. The obligation of many children to help their families at this time results in their prolonged absence during the crucial first month of the second year. (iii) Deficiencies in teachers, not merely in regard to academic qualifications, but—much more critically—in regard to less tangible qualities of spirit and understanding. Mention is also made of the failure of some teachers to adapt themselves to the rural environment which they may view as alien and/or inferior. (iv) Failure of local officials to enforce attendance laws—and of parish priests to instil in their congregations a sense of their " sacred duty " to educate their children. (v) Malnutrition and susceptibility to disease common among rural children due to low standard of living. (vi) Bad weather, poor roads and long distances between home and school. (vii) Influence of older friends who encourage students to leave school and seek work. (viii) Race and sex—desertion was most common among Indians and girls.

55. Williams, T. David. Wastage rates and teacher quality in Guatemalan primary schools. *Comparative education review* (New York), vol. 9, no. 1, February 1965.

Country. Guatemala. *Type of study.* Analysis of aggregate data.
Period covered by statistics. 1959-63.

Educational level. Primary.

1. Since the dropouts were interviewed several months after leaving school, these attitudinal differences could as easily be " consequences " as " causes ".

Source of data/procedure. Primary enrolment figures from the annual reports of the Oficina de Planeamiento Integral de Educación (covering 279,134 Guatemalan children in public primary schools). Wastage rates were computed for both urban and rural schools and correlated with proportions of " qualified teachers " (those having 2-6 years of post-primary training).

Findings

(i) Consistently indicated a strong relationship between retention rates and the relative qualification of the teaching force; rural areas in which qualified teachers constituted a third or more of the teaching force had considerably better retention rates than rural areas in which less than a third of the teachers were qualified. (ii) Over-all rural wastage rates were much higher than comparable urban rates (although migration from the rural areas to the urban admittedly exaggerated apparent rural wastage to an indeterminate extent). This difference was related to the significant variation found between rural and urban areas in respect to teacher quality, the proportion of qualified teachers being nearly three times as great in urban areas.

Conclusions

It is hypothesized that when the proportion of qualified teachers falls below 33 per cent, the resources devoted to education have been almost completely wasted, i.e. wastage rates become so high as to represent almost total loss.

56. Alvi, Nasir R.; Khan, Surrya B. *Extent and causes of dropouts in girls' primary in D.G. Khan District.* Punjab Institute of Education and Research, Punjab University, 1965. [1]

Country. Pakistan. *Date.* 1959-64. *Type of study.* Analysis of field study data.

Educational level. Primary (grades 1-4).

Source of data/procedure. (i) The extent of wastage was measured by following a cohort for four years from primary grade 1 through grade 4. (ii) The causes of dropping out were identified on the basis of questionnaires submitted to teachers and further interviews with parents, teachers, district education staff and union council chairmen.

Findings

(i) The most frequently mentioned cause of dropping out was poverty. The bulk of the population were extremely poor tenants who were obliged to put their children to work in order to supplement their income. (ii) Other causes were (in order of frequency of mention): unfavourable attitude toward education for women; lack of religious education in schools; migration; unsatisfactory teaching methods; hostility among the landlords; lack of means of communication; school failure.

57. Bux, Zakia K. Dropout factors in primary school. *Bulletin of education and research* (Lahore), vol. 1, no. 3, Spring 1963. (Institute of Education and Research, University of the Punjab.)

Country. Pakistan. *Date.* 1959-60. *Type of study.* Analysis of field study data.

Educational level. Primary (grades 2 and 5).

Source of data/procedure. An investigation of factors associated with dropping out in girls' primary schools in 15 villages in the Lahore area. (i) Selected possible causes of dropout were rated on a special scale by all 36 of the headmistresses and teachers at the sample schools. (ii) Supplementary opinions on causes were elicited through interviews with 30 of the teachers plus 25 mothers of dropouts.

1. Abstracted from summary in *Bulletin of the Unesco Regional Office for Education in Asia* (Bangkok), vol. 1, no. 2, March 1967.

Findings

(a) *Rating scale.* There were a number of different factors causing dropout. Among these, poverty was given as the principal cause by 53 per cent of the teachers. Lack of interest in education, parental orthodoxy, absenteeism and marriage were considered as the principal cause by 25, 11, 8 and 3 per cent, respectively, of the teachers. Continuous illness, long distance from school, and transfer were cited only as secondary causes.

(b) *Interviews with teachers and headmistresses.* (i) The ranking of causes was similar to the rating scale results, except that in the interviews, 83 per cent of the teachers (compared with 53 per cent on the scale) named poverty as the primary reason for leaving school. (ii) Teachers felt that lack of parental interest in the child's education was related to parental illiteracy. (iii) 80 per cent reported that soon after dropping out, many girls secured menial jobs in order to supplement family income.

(c) *Interviews with mothers.* (i) 80 per cent of the mothers said that because of extreme poverty they " could not even think " of educating their children. (ii) 60 per cent mentioned other reasons for discontinuation of schooling, including: feeling that education was " literary ", irrelevant to the child's future role in the community, that it did not train the child to assist in parents' work; idea that education was particularly unnecessary for girls.

Conclusions

The study indicated poverty and lack of parental interest in education to be the main causes of early school leaving.

58. Dandekar, V. M. Report of investigation into wastage and stagnation in primary education in Satara District. In: *Primary education in Satara District: report of two investigations.* Poona, Gokhale Institute of Politics and Economics, 1955.

Country. India. *Type of study.* Analysis of field study data.

Educational level. Primary.

Source of data/procedure. An investigation into the extent and causes of wastage and stagnation in Satara district primary school. [1]

(i) A representative sample of district schools was chosen and the staff of each school was asked to prepare a list of all pupils who had left the school without passing primary grade 3 between 1 June 1942 and 31 December 1945. (ii) Questionnaires completed by the schools elicited information on selected characteristics of dropouts as well as teachers' opinions regarding reasons for leaving. Data was obtained on 1,778 dropouts (all male).

Findings

(a) *Stagnation.* At every level, boys who dropped out had spent more years in school than those who successfully completed the same level. Thus, for example, the average number of years spent in school by those leaving in grade 2 is 5.685 compared with only 4.236 years by those who passed the same grade.

(b) *Age.* The mean age of dropouts in all grades was well above the average for the grade as a whole. The average age of all boys in grade 1 was 9.47 years; that of grade 1 dropouts was 11.17 (over-age reflecting either late enrolment or inability to maintain normal rate of progress).

(c) *Caste.* The distribution of wastage consistently reflected the rigid inequality of the caste system. Incidence of dropout was much lower among children of the literate castes (Brahmins, etc.) than among those from cultivating and artisan castes.

(d) *Income.* Wastage was also more prevalent among lower income groups (although data did not appear to support any neat linear relationship).

1. This is the second of two major studies of education in Satara. For a summary of the first, see the section *Consequences*, item no. 110.

(e) *Occupation of parents/guardians.*

Occupation	*Total wastage cases*
	%
Agriculture [1]	47.07
Artisans and hereditary village servants	20.50
Casual labour	18.37
Business, salaried employment	6.85
Other	6.86

(f) *Reasons for dropping out as noted by teachers.*

	%
Tends family cattle/sheep/goat	29.25
Migrated to other place	18.67
Employed on family farm	13.44
Employed in non-agricultural family occupation	7.26
Seeking casual employment in village	4.67
Truant	1.41
Intellectually subnormal	1.46
Other causes	23.84

59. University of Delhi. Agricultural Economics Research Centre. Primary education in rural India: participation and wastage. Delhi, 1968.

Country. India. *Type of study.* Analysis of (i) aggregate data and (ii) field study data.

Educational level. Primary (grades 1-4).

Source of data/procedure. (i) State level primary enrolment statistics [2] for all-India were used in the computation of cross-sectional retention ratios, i.e. number of students in primary grade 4 in relation to the number of students in grade 1 at same time. (ii) These retention ratios were then correlated with state level data on two broad groups of factors: those factors external to the educational system and beyond its direct control (e.g. income level, rigidity of caste system, extent of urbanization, literacy rates, etc.); and internal factors relating to the quality of education (e.g. curricula, proportion of trained teachers, location and facilities of schools). (iii) Field survey data were collected especially for this report from rural schools in 20 villages (in Punjab, Haryana and Uttar Pradesh) which were under study by the Agricultural Economics Research Centre: retention ratios for village schools being unavailable, the " percentage of eligible children attending school " was chosen instead as the wastage indicator and was correlated with the " annual family income " (less than 1,500 rupees compared with 1,500 or more) and " caste " (Harijan and non-Harijan); hypothesized link between seasonal agricultural activity and school absenteeism was investigated by asking head teachers to estimate attendance declines during sowing and harvesting time. (iv) Whenever possible, hypotheses derived from aggregate data were checked against field survey results, and vice versa.

Findings

(a) *Factors internal to educational system.*[3] (i) Retention ratios failed to show any significant statistical association with the following indices of rural educational quality: educational expenditure per capita; primary school expenditure per capita; average annual cost per pupil in primary school; student-teacher ratio in primary schools; number of available schools per lakh of population; proportion of schools (in state) having playground facilities; percentage of rural population served by primary school; facilities within a walking distance of one mile. (ii) However, one measure of educational quality—the proportion of trained teachers in rural schools—did correlate significantly with retention.

(b) *External factors.* (i) There was no significant link between retention ratios and: historically prevailing literacy rates in states; degree of urbanization (ratio of urban

1. Incidence of wastage inversely related to size of agricultural holding.

2. Data from the Ministry of Education, the 1961 Census and the National Council of Educational Research and Training (NCERT).

3. Findings in this section were considered tentative because of " certain inconsistencies in the data available for analysis ".

population to total state population); degree of industrialization (level of per capita power consumption and percentage of state income derived from agriculture). (ii) Aggregate data for income and enrolment in relation to retention indicated a strong positive association between rural per capita income [1] and retention ratios; the field survey in 18 of the 20 villages showed that the percentage of children attending school was systematically higher among families in the high income bracket (1,500 rupees or over per annum). (iii) Membership in non-Harijan (i.e. higher) castes was positively related to higher levels of school attendance among children in 90 per cent of the villages. However, since the lower castes also tended to be poorer, it seemed very possible that the apparent effect of caste was actually due to low income level. The influence of caste did persist within each income group, but these income categories were so broadly defined that it was not feasible to effectively hold constant the income factor. (iv) Teachers in the 24 primary schools studied described a sharp drop in attendance (most acute among low-income, low-caste children) during peak agricultural seasons.

Conclusions

Findings seemed to suggest that external factors stemming from " social and economic backwardness " were the principal causes of wastage. Without attention to socio-economic problems outside the school, efforts to improve quality of education—school facilities, etc.—would bring about only marginal improvements at best. However, an attempt to synchronize school schedules with agricultural activities could be very useful.

60. Hag, M. Serajul. *Dropout in primary schools.* Dacca, Institute of Education and Research, Dacca University, 1961.[2]

Country. Pakistan. *Type of study.* Analysis of field study data.

Educational level. Primary (grades 1-5).

Source of data. Case study of 251 dropouts (200 boys and 51 girls) from 12 rural primary schools in the Dacca and Noakhali districts.

Findings

(i) Reasons (order of importance not indicated) for abandoning school were identified as: domestic and other work (usually helping out in parents' profession); parental neglect; poverty; school failure; lack of interest in school; the plea of having grown up (in the case of girls); marriage; admission to madrasha; lack of transportation. (ii) Of the 251 dropouts, more than half were retarded in school: 89 by 1 year, 31 for 2 years and 19 for 3 or more years.

61. India. Ministry of Education. *Report of the Education Commission 1964-66: education and national development.* Delhi, Government of India Press, 1966.

Country. India. *Type of study.* Analysis of (i) aggregate data; (ii) field data.

Educational level. Primary (grades 1-7).

Source of data. A large-scale government survey and evaluation of all levels of education throughout India.

Findings

(a) Special consideration was given to be particularly high rate of attrition in primary grade 1 attributable to: lack of educational equipment in schools; over-crowded classes; unsuitable curricula; poor teaching of beginning reading; examination system (it is suggested that end-of-grade examinations for grade 1 be abolished); inadequately trained teachers; failure of teachers to make the introduction to school life pleasant; irregular attendance; heterogeneity of grades with regard to age of pupils (in 1961-62,

1. Gross value of state agricultural output divided by number of rural population.

2. Abstracted from summary in *Bulletin of the Unesco Regional Office for Education in Asia* (Bangkok), vol. 1, no. 2, March 1967.

for instance, only 31.7 per cent of children enrolled in grade 1 were in the prescribed 6-7 age-group).

(b) Throughout the rest of the primary cycle (2-7) the causes of the wastage which persists (though at a lesser rate) were identified as follows. (i) Economic causes—About 65 per cent of dropout at these levels was due to poverty. After the age of 9 or 10, the child becomes an economic asset to his parents because he can work with them or earn something outside the home—thus he is withdrawn from school. (ii) Educational and social causes—accounted for another 30 per cent of wastage, and included: incomplete schools not teaching the full cycle of courses; lack of ancillary services such as school meals and health clinics; " dull character " of majority of schools; high rate of repetition which discouraged children from persisting with their education; early betrothal and marriage; failure of both parents and children to perceive advantages of staying in school; reluctance to send older girls to mixed schools or schools without women teachers.

62. India. National Council of Educational Research and Training. Department of Educational Administration. *Wastage and stagnation in primary and middle schools in India: project report.* New Delhi, 1966. [1]

Country. India. *Date.* 1962-64. *Type of study.* Analysis of field study data.

Educational level. Primary and middle.

Source of data/procedure. A study of wastage and stagnation in four selected localities, with emphasis on identification of causes. (i) School factors were correlated with rate of dropout in each school sampled. (ii) Variables relating to the student and his family were studied by statistical analysis of differences between stay-ins and dropouts (and their parents) as revealed on interview schedules. (iii) Evaluation of the relative importance of causal factors was based on discriminant function analysis of quantified interview data and on an opinion poll of teachers, educationists and parents.

Findings

(a) *School-related.* (i) Wastage was less in schools which had teachers with higher qualifications, provided " co-curricular activities ", and did not have double shifts. (ii) Dropouts tended to be older than stay-ins, to have poor attendance records and academic achievement inferior to that of stay-ins.

(b) *Family-related.* (i) More dropouts than stay-ins had lost one or both parents. (ii) More dropouts came from poor and socially handicapped families. Incidence of dropout was highest among children of families engaged in agriculture, labour and handicrafts. (iii) Amount of parental schooling correlated positively with wastage rates.

(c) *Relative importance of factors.* The first six variables discriminating dropouts from stay-ins were in order of importance: school attendance; parental views of child's educational performance; motivation from home for learning; pupil's academic performance; social position; age on entering school.

63. Koizumi, Kihei; Amano, Ikno. The process of eradicating wastage in primary education: Japan's experience. *Research bulletin of the National Institute for Educational Research* (Tokyo), no. 8, April 1967.

Country. Japan. *Type of study.* Analysis of aggregate data.

Educational level. Primary.

Purpose of study. A historical survey of primary school wastage (including dropping out and retention) which attempts to define and analyse the changing dimensions and causes of the problem over a series of Rostovian stages in Japan's educational development from 1872 to the present.

1. Abstracted from summary in *Bulletin of the Unesco Regional Office for Education in Asia* (Bangkok), vol. 1, no. 2, March 1967.

Source of data. Primary school retention rates from 1877 on, surveys on causes of dropping out (from 1895), other statistical and analytic materials from the Ministry of Education. There is no discussion of methodologies anywhere in the paper.

Findings

(a) *Period I: 1872-85* (" stage of preparing conditions for take-off "). High levels of wastage in the four primary grades during this period are attributed to: most importantly, a promotion system by which pupils were promoted only through achievement tests given every six months; inappropriate curricula (transplanted unaltered from advanced countries) ill-suited in standards and content to the Japanese people, who generally desired a much more practical education; poor physical facilities in schools; need for child labour on farms in an economy where agriculture was still by far the dominant sector; resentment incurred by heavy burden people were obliged to bear in financing education; delay in establishing, and enforcing, compulsory primary education.

(b) *Period II: 1886-99* (" take-off "). (i) By this time, some of the above problems had been mitigated by government counter-measures (such as simplification of curricula, introduction of annual promotions, legal specification of the period of compulsory education, strengthening of attendance enforcement) designed to adapt primary education to prevailing economic, social and cultural conditions—and wastage was diminishing. (ii) Retention rates by sex for the years 1892-99 showed a much higher attrition rate among girls—a reflection of the lack of understanding regarding the importance of education for women. (iii) The initial surveys on causes of dropping out made in 1895-96 concluded that poverty accounted for approximately 50 per cent of early leaving, illness for approximately 11 per cent, " other " reasons for 38 per cent. (iv) Further government attempts to improve primary education included: abolition of achievement tests for grade promotion, establishment of standards for educational facilities and equipment and still stricter enforcement of school attendance.

(c) *Period III: 1900-19* (" the drive to maturity "). (i) Although the extension of compulsory education to six years in 1908 produced a sharp increase in dropping out, the over-all reduction of wastage was so substantial[1] that the Government gradually lost interest in making surveys on causes of wastage. (ii) However, it did continue its counter-measures during this period: the Primary School Order of 1900 abolished examinations for graduation and provided for tuition-free compulsory education.

(d) *Period IV: 1920-present.* (i) Once the enrolment of school-age children had reached almost 100 per cent, the most important causes of wastage were physical handicaps, illness, poverty and lack of parental interest in education. (ii) By 1967, " almost all " those who started first grade apparently completed nine years of primary education. Among out-of-school children (both dropouts and those who had never attended—totaling only 0.001 per cent of the school age population) 86.7 per cent were physically handicapped.[2] (iii) Current wastage problems in Japan centre around long-term absentees (more than 50 days a year) and slow learners.

Conclusions

Elimination of wastage depends primarily upon the effective manipulation of educational factors (curricula, promotion systems, allocation of financial burden, etc.) in association with the over-all plan for socio-economic development of the country.

64 (111). Philippines. Bureau of Public Schools. *Survey of dropouts in elementary schools: a joint project of the National Economic Council and the Bureau of Public Schools.* Manila, n.d.[3]

Country. Philippines. *Date.* 1955-56. *Type of study.* Analysis of field study data.

Educational level. Primary (grades 1-6).

1. Of those entering school in 1919, only 11 per cent left before completing six grades.
2. This rather remarkable information follows fast upon the statement that " it is not possible to indicate precisely... quantity and causes " of current wastage!
3. Abstracted from summary in *Bulletin of the Unesco Regional Office for Education in Asia* (Bangkok), vol. 1, no. 2, March 1967.

Source of data/procedure. National survey on causes of early school leaving among 16,183 primary school dropouts selected at random from 43 school divisions. Data were obtained through questionnaires and through home interviews with dropouts (1 to 4 years after leaving school) and their parents.

Findings

The survey showed that 39 per cent of early leaving was due to economic factors; 35 per cent to educational factors; 17 per cent to home and social factors; and 9 per cent to illness and health disorders.

65. Unesco. The problem of educational wastage. *Bulletin of the Unesco Regional Office for Education in Asia* (Bangkok), vol. 1, no. 2, March 1967.

Type of study. Secondary analysis of aggregate and field study data.

Purpose of study. To review the Asian situation with regard to educational wastage (dropping out and grade repetition) and to summarize results of selected research on this problem and its causes.

Source of data. Country reports, field studies and other materials presented during the Unesco-sponsored Technical Seminar on Educational Wastage and School Dropouts held in Bangkok in 1966.[1]

Findings

(a) *Socio-economic factors.* These were the most frequently mentioned causes of wastage and comprised: (i) family poverty necessitating use of child labour, mainly in domestic work, leaving children little time to study and ultimately resulting in their failure in school; (ii) malnutrition and poor health conditions associated with poverty; (iii) level of literacy in family and educational status of parents—Iranian and Indian studies showed an inverse relationship between the incidence of wastage and both the number of literate family members and the amount of schooling possessed by parents; (iv) the traditional attitudes toward education, particularly for girls; (v) linguistic-cultural differences affecting minority groups, e.g., research in Thailand and Iran demonstrated that failure in school, leading to repetition or dropout, was more likely among pupils whose parental language was different from the medium of instruction in school.

(b) *School factors.* (i) Dropout rate tended to increase with: grade repetition (high incidence due mainly to formal examinations given too early in child's educational career); irregular attendance; incomplete primary schools (Afghanistan, Cambodia, Laos, Iran); diversity of age composition (over-age children likeliest to abandon school). (ii) There was little evidence of an association between dropout/repetition and class size or the pupil-teacher ratio. (iii) A number of studies identified " lack of interest in learning " as a major reason for wastage. It is suggested that, in the majority of cases, such lack of interest results from *inter alia*, ill-conceived teaching methods and materials which minimize the chances of meaningful learning.

(c) *Other.* (i) In all countries (except Laos and Thailand) the wastage rate was higher among girls. Possibly because the social and cultural factors which contribute to low female enrolment also operate to increase wastage among those who do enrol. (ii) Holding power of rural schools was markedly inferior to that of urban schools.

Conclusions

Wastage, particularly in the beginning grades, screens out pupils on the basis of factors more related to their environment than to their abilities.

1. Participating countries: Afghanistan, Burma, Cambodia, Ceylon, Republic of China, India, Indonesia, Iran, Republic of Korea, Laos, Malaysia, Mongolia, Nepal, Pakistan, Philippines, Singapore, Thailand, Republic of Viet Nam.

B. CONSEQUENCES OF EARLY SCHOOL LEAVING

66 (3). Bienstock, Herbert. Realities of the job market for the high school dropout. In: Schreiber, D., ed. *Profile of the school dropout.* New York, Vintage Books, 1968.

See *Antecedents* entry for description of study.

Findings

(i) A major change in job patterns is causing a rapid decline in the occupations (blue-collar and farm) which traditionally have absorbed dropouts. The expanding category of white-collar jobs requiring an ever-higher level of education and skills is the very one least accessible to the growing number of dropouts. For example, less than 7 out of 100 of those who leave before graduation find work in clerical and related occupations (in which education completed averaged 12.5 years in March 1962). (ii) Unemployment rates for high school dropouts are more than 50 per cent higher than for graduates. (iii) The student who drops out after one to three years of high school can expect to earn $31,000 less during his lifetime than his classmate who stays on to graduate.

67 (4). Bowman, Paul H.; Matthews, Charles V. Motivations of youth for leaving school. Quincy (Ill.), University of Chicago, Youth Development Project, 1960.

See *Antecedents* entry for description of study.

Findings

(a) *Dependency.* Even though the dropouts had been out of school for six months, 77 per cent continued to live at home and 27 per cent of them (compared with 18 per cent of control stay-ins) were still dependent on their parents. Only 55 per cent (compared with 70 per cent of controls) were self-supporting.

(b) *Employment.* Six months after leaving, almost half the dropouts were holding jobs of a temporary nature with no opportunity for advancement—this included work as dishwashers, service station attendants, delivery boys, odd manual labour, etc. Most of the controls, on the other hand, had managed to find work which offered them a chance to get somewhere. Over-all the dropouts made poorer work records, held their jobs a briefer time and received fewer advancements than the controls. The follow-up a year later showed a substantial improvement in the job status and performance of both groups. For example, only 25 per cent of the dropouts remained in the bottom category with regard to type of work. However, the gap between the two groups persisted; the stay-ins were still at an advantage.

(c) *Attitude towards school.* The dropouts' attitude was preponderantly negative. Only 29 per cent recalled liking school, while 67 per cent had disliked it. Among the controls, [1] 72 per cent liked school and only 12 per cent did not. Nonetheless, half the dropouts said that if they had it to do over, they would stay in school.

(d) *Plans for the future.*

	Dropouts %	*Controls* %
Marriage	31	14
Service	19	19
Finish high school	19	—
Post-high school education	—	37
Employment	15	25
None	15	5

1. Who, it must be reiterated, were still in school when interviewed.

(e) *Marriages.* (i) In June 1959 (i.e. one year after graduation for stay-in members of cohort) 40 per cent of the dropout boys and 80 per cent of the girls were married (against 29 per cent control boys and 41 per cent control girls). (ii) Half the dropout marriages (compared with only 1 in 6 of control marriages) were rated [1] as " distinctly below average ". While 70 per cent of control marriages were considered above average, only 25 per cent of dropouts were in this category. Early dropout marriages (very often forced by pregnancy) were not as successful as those made by dropouts after the age of 18.

(f) *Personality adjustment.* Re-administration of the California Psychological Inventory to 20 dropouts a year after leaving school showed that those who had jobs or had married scored more favourably on this test than they had in school; those who had not found work or who drifted from job to job scored even lower than previously.

68. Cantoni, Louis J. Stay-ins get better jobs. *Personnel and guidance journal* (Washington), vol. 33, May 1955.

Country. U.S.A. *Date.* 1954. *Type of study.* Analysis of field study data.

Educational level. Secondary.

Purpose of study. To test the hypothesis that amount of education correlates positively with level of job attained.

Source of data. Follow-up of 468 working-class students attending high school between 1939 and 1943; 269 of them (55 per cent) had dropped out of school before graduation.

Findings

(i) Graduates had 14.0 mean years of schooling compared with only 10.8 years for dropouts. Only rarely did the latter undertake further course work after abandoning school. (ii) There was no unemployment in either group. (iii) On a 5-point scale (1 = unskilled, 2 = semi-skilled, 3 = skilled, 4 = business/managerial, 5 = professional and high executive) mean job level for dropouts was 2.6 against 3.2 for graduates.

Conclusions

Declining number of unskilled and semi-skilled jobs increases pressure on dropouts and makes it even more important for them to stay in school.

69 (8). Dillon, Harold J. *Early school leavers: a major educational problem.* New York, National Child Labor Committee, 1949.

See *Antecedents* entry for description of study.

Findings

(a) *Manner of obtaining jobs.* Approximately 85 per cent of the early leavers had entered work directly from school, but only 13 per cent had sought school guidance in making occupational plans and still fewer (5 per cent) took advantage of the school placement facilities; the rest had found work either through a friend or by " shopping around ".

(b) *Occupational instability.* One-third of the dropouts had held three or more jobs during their first year out of school and more than half of them had left their initial type of employment for other areas of work.

(c) *Relevance of schooling.* Nearly 40 per cent of the sample indicated that none of the subjects taken in school were helpful to them in their work.

1. Low ratings were given when there was evidence of quarrelling, threats or plans for separation or divorce, desertion, husband in jail, sexual promiscuity. Marriages precipitated entirely by pregnancy were also rated low. Subjective impressions (on success of marriage) of marriage partners, and of their relatives were also taken into account.

(d) *Job satisfaction and occupational preference.* (i) When asked what kind of work they would like, " if they had their choice ", the majority of the dropouts expressed a desire to leave the area of employment in which they were working. Less than one-third wished to remain within their present area of work, and of these only half were satisfied with the jobs they actually had—the rest wanted higher level positions. (ii) 172 of the dropouts expressed an interest in various professional and technical occupations, all requiring at the very least a high school education (and some requiring college and graduate work). However, only a small proportion of those mentioning such choices had the ability (i.e. IQ scores) to undertake the necessary specialized training. This gap between aspirations and qualifications appeared to indicate the extent to which school leavers' ideas about occupations and job requirements were " picked up in a haphazard manner without the aid of a counsellor or teacher ".

(e) *Further education.* Only 20 per cent of the dropouts had taken any additional training [1] (such as short-term training courses or on-the-job training) since leaving school.

70. Greene, Bert I. A study of selected dropouts—a decade or more after leaving school. Ph.D. dissertation. University of Michigan, 1961.

Country. U.S.A. *Date.* 1960. *Type of study.* Analysis of field study data.

Educational level. Primary and secondary (high school graduates vs. dropouts [2] from grades 2-12).

Purpose of study. To determine what had happened to selected dropouts since leaving school with regard to employment experience, further education obtained, leisure activities and attitudes about education.

Source of data/procedure. (i) From the records of all grade 6 children in the public elementary schools in Ypsilanti, Michigan, data was obtained on their fathers' level of education. [3] (ii) This provided a sampling frame of 172 dropout fathers and 193 graduate fathers, from which 50 dropouts and 25 graduates were randomly selected for comparison. (iii) Personal interviews provided information on 44 of the dropouts and 23 graduates. [4]

Findings

(a) *Employment.* (i) Graduates tended to be in higher status occupations—52 per cent of them held white-collar jobs compared with only 6 per cent of the dropouts, 84 per cent of whom were semi-skilled or unskilled workers. (ii) Both dropouts and graduates reported that family influence was an important factor in their choice of career. However, while 27 per cent of the graduates credited their school experiences with helping them choose, not a single dropout mentioned his school, in fact 44 per cent of dropouts said they took what they could get. (iii) When asked what they liked about their jobs, the reasons given most often by dropouts related to economic satisfactions (adequacy of wages, job security, retirement benefits, etc.), while graduates tended to stress "achievement-related ego satisfactions" [5] relating to responsibility, opportunities for decision making, complexity of work, use of skills and talents, reward and recognition from others; both groups gave considerable importance to " curiosity-related ego satisfactions " (defined as chance to learn new things, interesting and varied work); the primary source of dissatisfaction among both groups was extrinsic, non-monetary factors (unpleasant place to work, too much pressure, place of employment or hours inconvenient, dirty or hazardous work). (iv) Assuming present qualifications only, 68 per cent of the graduates

1. Whether there happened to be any overlap between the high-aspiration dropouts and those who undertook some sort of further schooling is not indicated.

2. Only 10 per cent had completed less than 7 grades.

3. Only fathers of sixth grade children were used on the assumption that a parent with a child in sixth grade would be likely to have been out of school himself for at least 11 years.

4. Four of the graduates were former dropouts who had eventually obtained their high school diplomas—these were classified as dropouts within this study.

5. The categories of " achievement-related ego satisfactions " and " curiosity-related ego satisfactions " seem somewhat arbitrary and often overlap.

said they wanted to continue just what they were doing, while only 25 per cent of the dropouts were satisfied with their current work, i.e., 75 per cent would have preferred to enter another occupation; this willingness to change jobs was reflected in the fact that the mean number of jobs held by dropouts was 5.1 against 3.6 for graduates.

(b) *Attitudes regarding education.* (i) Both groups thought it was important for their children to receive an education. Most of the dropouts (75 per cent) stressed the effect it would have on employment while graduates tended to relate it to social adjustment. (ii) Dropouts seemed to be less sure than graduates that they could keep their children in school until graduation. (iii) Of the dropouts, 14 per cent had one or more children who had already dropped out while none of the graduates' children had left school early. (iv) When asked how much they were bothered by not having completed high school, the dropouts responded as follows: bothered a great deal, 33 per cent; sometimes bothered, no use thinking about it, 27 per cent; a little at first, not now, 14 per cent; not at all, 10 per cent. 81 per cent said they would stay in school long enough to graduate if they had it to do over again. However when asked if they would actually like to return to school now, only 35 per cent said yes. Of the 65 per cent responding negatively, three-quarters felt they were too old.

(c) *Continuing education.* (i) The graduates were generally more aware than dropouts of opportunities for further education and training—all the graduates in the sample, compared with only 66 per cent of the dropouts, knew of the existence of an adult education programme in the community. (ii) All of the graduates had taken part in at least one type of continuing education programme [1] and 54 per cent had participated in more than one type of programme. Among the dropouts, on the other hand, 64 per cent had not taken advantage of any form of continuing education.

Type of continuing education	*Dropouts participating*	*Graduates participating*
	%	%
Trade school	10	26
Apprenticeship	10	21
Correspondence courses	17	32
Adult education courses	8	37

(iii) More graduates than dropouts had obtained additional training and education during their military service. (iv) The pattern of early leaving seemed to carry over to the dropouts' performance in trade school and correspondence courses, where they were less likely than graduates to have completed the courses they started. However, in apprenticeship programmes, the dropouts' persistence was equal to the graduates'—the rate of completion in both groups was 100 per cent.

(d) *Leisure-time activities.* (i) Dropouts and graduates gave approximately the same percentage of their leisure time to the following kinds of activities. Solitary activity: active (gardening, home workshops, reading, creative arts, collecting things, fishing, hunting) 38-42 per cent; passive (watching television or sports events, listening to records, going to movies) 26-29 per cent. Social activity: with family, 5-6 per cent; community interest, 4-5 per cent. However, while graduates spent 26 per cent of their time on social activity with friends, dropouts spent only 17 per cent in this manner. (ii) Type of materials read: both groups read paperbacks almost exclusively, but neither dropouts nor graduates had used a public library in previous month; a higher percentage of graduates favoured news magazines, professional journals and picture magazines.

	Reading newspapers	*Reading at least 1 magazine*	*Having read at least 1 book in month prior to interview*
	%	%	%
Dropouts	80	50	21
Graduates	100	84	37

1. Continuing education was understood to include: correspondence courses, trade schools, adult education programmes, apprenticeships, college courses.

(iii) Membership in organizations: 73 per cent of the dropouts (against only 26 per cent of the graduates) did not belong to any organization; the two groups also differed markedly on type of organizational affiliation, the overwhelming majority (85 per cent) of dropouts who joined anything chose social organizations, whereas among the graduates, 43 per cent were involved in youth work or community organizations, 29 per cent belonged to professional societies and only 14 per cent to social organizations. Post-high school organizational affiliation did not appear to be related to participation in high school activities; however, there did seem to be some correlation between organizational affiliation and participation in some form of continuing education.

(e) *Special case studies of the four dropouts who later completed their high school training.* Several factors were identified common to their respective experiences: (i) in all cases, the decision to complete their education was made after a change of reference groups; (ii) none of these former dropouts returned to the public schools but instead completed their training either during their military service or through correspondence courses; (iii) three out of four were seniors when they left school. These findings suggested the following hypotheses: the more grades a dropout completes before leaving school, the more likely he is to complete his education later; the more the structure of continuing education programmes differs from the typical school situation which alienated him earlier, the more likely a dropout is to take advantage of such opportunities.

71. Lipset, S.M.; Bendix, R. *Social mobility in industrial society.* Berkeley, University of California Press, 1959. Chapters V-VII.

Country. U.S.A. *Date.* 1949-50. *Type of study.* Analysis of field study data.

Educational level. Primary, secondary and university.

Source of data/procedure. A survey of labour mobility among wage earners in Oakland, California, carried out by the Institute of Industrial Relations of the University of California. Questionnaires were administered to 935 principal wage earners (ranging from unskilled to high level white-collar) in families residing in clusters selected at random within 55 of the 72 census tracts in the city of Oakland (17 tracts considered to represent extremes of poverty and wealth were eliminated). Complete job histories as well as information on educational and family background were obtained from all respondents.

Findings

(a) *Education and first job.* (i) Among respondents who had completed 0 to 8 years of school, only 20 per cent started their careers in white-collar jobs compared with 35 per cent of those with 9-12 years of education and 67 per cent of those with 13 or more years. (ii) However, family background (as reflected in father's occupation) tended to qualify the influence of educational attainment on first job; thus, of men with 9-12 years of education whose fathers held manual jobs, 70 per cent started their own careers in manual occupations against only 50 per cent of those at the same educational level but with non-manual fathers.

(b) *Education and career.* The table suggests that, while access to at least one non-manual job was open to the majority of men at every educational level, the chances of spending a majority of one's career in non-manual work were more rigidly determined by schooling:

Education attained	*Percentage ever having held non-manual job*	*Percentage of total career spent in non-manual jobs*	*Percentage of total career in manual jobs*
8 yrs. or less (N = 228)	67	32	60
Some high school (N = 147)	68	35	57
High school graduate (N = 160)	77	51	44
Some college (N = 73)	89	63	31
College graduate (N = 45)	98	86	12

(c) *Vocational guidance.* Men who left school early cut themselves off from a source of much-needed vocational advice (not usually available until high school); 87 per cent of those who did not go beyond elementary school received no vocational guidance from teachers.

72 (18). Lovett, Stephen K. The post-secondary school adjustment of matched groups of graduates and dropouts with special reference to underlying familial differences. Ed.D. dissertation. Harvard University, 1955.

Country. U.S.A. *Date.* 1954. *Type of study.* Analysis of field study data.

Educational level. Secondary (high school graduates against dropouts from grades 10 and 11).

Purpose of study. To investigate the effect of high school graduation on pupils who might normally be expected to leave school before graduation.

Source of data. A follow-up study of the occupational and social/civic adjustments—3 to 8 years after leaving school—of 124 male graduates and dropouts in an industrial community of 50,000 persons.

Procedure. (i) Using data on 1,316 graduates and 521 dropouts from four classes, 62 pairs of dropouts and graduates were matched on known characteristics of dropouts as established by previous studies: average in grade; sex (male); low intelligence ratings; sub-standard school achievement; low SES and limited education of family; and broken homes where possible. (ii) A questionnaire was administered to the sample through a series of interviews, generally in their homes. (iii) The research design provided for a preliminary investigation of possible differences between dropouts who left in grade 10 and those who left in grade 11. (iv) The dropouts were subsequently combined into a single group and contrasted with the matched group of graduates on 78 variables related to: earning a living, social and civic participation, leisure time activities, conserving and preparing for the future, and personal feelings with regard to education.

Findings

Although the two dropout groups did not differ significantly, the grade 11 dropouts did compare favourably with grade 10 dropouts on 52 of the 78 variables considered.

(a) *Earning a living.* Graduates and dropouts did not differ significantly with regard to occupational adjustment as measured by: weekly pay, number of jobs held, number of advancements, job satisfaction and attitude toward chances for advancement. However, graduates tended to score somewhat more favourably on these indices.

(b) *Conserving and preparing for the future.* (i) The following significant differences emerged: a greater number of graduates held health, accident and medical insurance; far more graduates than dropouts had obtained additional education after terminating high school. (ii) Graduates and dropouts did not differ on the remaining indices, i.e. accumulation of savings, home and automobile ownership, amount of life insurance and occupational aspirations (what job individual would like to have when he reached age 40).

(c) *Leisure time activities.* (i) Graduates and dropouts did not differ significantly in their reading habits (number and type of books, magazines and newspapers read). Both groups generally confined themselves to pocket book westerns and mysteries, picture magazines and local newspapers. However, more dropouts than graduates read foreign news. (ii) Patterns of radio listening and television viewing (number and kind of programmes) were similar among dropouts and graduates—except that more dropouts reported watching particular TV shows regularly. (iii) The two groups did not differ importantly with regard to participation in sports and hobbies.

(d) *Social and civic participation.* (i) No significant contrasts emerged between dropouts and graduates regarding the following: extent of participation in social and civic organizations (membership, financial contributions, office-holding, etc.); voting (number of registered voters, percentage voting in last election and percentage planning to vote in next election); traffic violations and arrests for other offences. (ii) An awareness of local issues and stands taken on them did not vary significantly between dropouts and graduates; on national issues the graduates tended to be more knowledgeable (3 out of 5 cases), but in regard to positions on issues, the two groups differed only once—more graduates opposed the McCarthy committee; graduates and dropouts did not differ significantly on 8 of 10 items concerned with knowledge of and positions on international issues, though, more graduates had knowledge of NATO and more graduates favoured resumption of Korean peace talks. (iii) Church attendance was higher among graduates than dropouts—there was no important difference with respect to amounts of money given to church.

(e) *Personal feelings about education.* Regard for school and educational aspirations for own children were both significantly higher among graduates. The investigator also reports his subjective impression that many dropouts felt handicapped—socially and occupationally—by not having a complete high school education.

(f) *Home life.* Repeated visits to homes of graduates and dropouts produced a strong impression of a basic difference in living patterns. Among the graduates, family life appeared to be ordered and social customs and courtesies were observed; the dropouts, on the other hand, were indifferent to these niceties and seemed haphazard and careless in their family life.

Conclusions

Although the graduates scored more favourably than the dropouts on 54 of 78 variables relating to post-school adjustment, few of the differences between the two groups reached a significant level. Of those that did, only the somewhat greater knowledge of the graduates regarding current affairs was considered to be a consequence of schooling. The other significant differences, e.g., in church attendance, amount of additional education obtained, insurance held, etc., were seen as more likely to stem from family background [1] than from high school training. It was concluded that prolongation of the educational experience through completion of the last years of high school did not significantly affect the post-school adjustment of graduates who might ordinarily have dropped out.

73 (20). Miller, S.M ; Comings, Carolyn; Saleem, Betty. *The school dropout problem.* Syracuse, State of New York, Division for Youth, 1963. Part I.

See *Antecedents* entry for complete description of study.

Findings

(a) *Work experience.* (i) Examination of work permits revealed heavy concentrations of dropouts within a few employment categories: 86 per cent of girls were in wholesale or retail trade, professional or manufacturing categories and 68 per cent of boys in wholesale or retail trade, entertainment or manufacturing. (ii) Occupational classifications assigned to the 199 dropouts (35 per cent of entire sample) who applied to the New York State Employment Service indicated that: only 35 per cent of them were classified as white-collar workers—more than twice as many girls as boys were in this category, boys were classified for a wider range of jobs than girls; the largest category for girls was clerical and sales; for boys, it was semi-skilled manual labour.

(b) *Armed services.* Of the boys in the sample 11 per cent entered the service in most cases after spending some time on the labour market.

1. As investigated elsewhere in the same study—see *Antecedents.*

(c) *Police arrests after age 16.* (i) Of the 1959-60 dropouts 12 per cent had been arrested one or more times by March 1962. Serious crimes constituted 35 per cent of the offences, with property offences remaining most common among boys (see *Antecedents* entry). Five times as many boys as girls were arrested and boys were more likely (just as among juvenile offenders) to have been arrested more than once. (ii) Cross-tabulation of Juvenile Offenders Registry and police records showed a remarkably small overlap—only 5 per cent of all dropouts had both a juvenile and a police record. This seemed to indicate that delinquency once started is not a continuous pattern.

74. Mueller, Richard J. A follow-up comparison of post high school success of matched high school dropouts and graduates. Ph.D. dissertation. State University of Iowa, 1963.

Country. U.S.A. *Date.* 1962-63. *Type of study.* Analysis of field study data.

Educational level. Secondary (high school graduates against dropouts from grades 9-11).

Purpose of study. To explore the consequences of not completing high school through a comparison of attitudes and post-school experiences of dropouts with those of graduates of comparable ability and socio-economic background.

Source of data/procedure. (i) Population sampled: school rosters were used to identify all students entering grade 9 in 18 eastern Iowa high schools in September of 1955 or 1956—14 of the schools were located in communities of 200-8,000, 1 school in a community of 16,000, and 3 in communities of over 30,000; the dropout group was non-restricted, i.e. it comprised all those from the two grade 9 classes under consideration who had not entered grade 12 but were known not to have transferred to another school; matching was used in order to obtain a group of graduates of approximately the same sex, ability (dichotomized as high or low according to composite scores on Iowa Test of Educational Development) and socio-economic status (high vs. low according to Warner Scale rating of father's occupational status). (ii) Instrument and response: a questionnaire (designed to elicit facts, attitudes and unstructured general comments) was mailed to all subjects and those not responding within a few weeks received a second copy.

	Responding %	*N-responding*	*Years out of school*
Dropouts	50.1	173	5-7
Graduates	62.0	253	3-4

In a special follow-up, 26 non-respondents (13 graduates and 13 dropouts), representing 8.2 per cent of the total non-respondent group, were contacted personally and filled out the questionnaire. (iii) Analysis: Comparisons (both over-all and according to stratification by sex, ability and SES) were made between graduates and dropouts by analysis of variance of 20 variables relating to vocational experience, community participation, recreation, further schooling, attitudes toward education, etc.; further comparisons were made by percentage tabulation of responses to a series of items dealing with marital status, voting record, etc.; almost all comparisons in both groups differentiated between initial respondents and non-respondents interviewed in the special follow-up.

Findings

(a) The 295 separate analyses of variance resulted in 45 statistically significant (at the .05 level) differences, nearly half of which clustered around four variables.[1] The resulting trends indicated that graduates: had achieved higher occupational status than dropouts; attended church more frequently; visited the public library more often; were less likely than dropouts to express dissatisfaction regarding the exclusivity of the extra-curricular programme in their schools.

1. Breakdowns by sex, ability and SES meant that a total of 15 comparisons was made on each variable. The maximum number of significant differences obtained on any one variable was 9.

(b) Analysis of the remaining variables failed to reveal any consistent pattern of differences between dropouts and graduates. The variables and the number of comparisons which were significant (out of a possible 15) for each were as follows: opinion of United Nations, 3 (graduates more critical); number of sports equipment items owned, 3; level of satisfaction with programmes and educational services provided by school, 2 (dropouts more dissatisfied); mean number of books read, 2; amount of further schooling, 2; civic participation (level of membership and activity in community groups), 1; amount of wages currently earned, 1; job satisfaction, 1; wage satisfaction, 1; amounts and kinds of reading, 1; mobility (intention of leaving community), 0.

(c) Neither non-respondent dropouts nor non-respondent graduates differed from their respondent counterparts on the variables discussed in paragraphs (a) and (b), except as follows: dissatisfaction with programmes and educational services provided by their schools was greater among non-respondent dropouts than among respondent dropouts; graduate non-respondents showed a higher level of reading interest than graduate respondents. (For further variation among non-respondents on other variables, see below.)

(d) Supplementary results from tabulations. (i) Voting record: among respondents, 22 per cent of graduates had voted in a local election compared with 17 per cent of dropouts; however, among non-respondents 15 per cent of the dropouts and none of the graduates had voted. (ii) Kinds of further schooling:

	Respondents		*Non-respondents*	
	dropouts	*graduates*	*dropouts*	*graduates*
	%	%	%	%
Business school	1	5	0	7
Correspondence school	12	2	7	7
Trade school	5	10	7	0
College or junior college	1	21	0	15
Military training	5	5	0	0

(iii) Allocation of surplus tax funds: among respondents, 43 per cent of dropouts and 37 per cent of graduates advocated spending such funds on improvement of schools; among non-respondents, the two groups differed much more, with twice as many dropouts (62 per cent) as graduates (31 per cent) supporting spending on schools. (iv) Marital status: differences emerged along two dimensions—first the percentage of group married and the incidence of marital instability (divorce, separation, etc.) were higher among dropouts than among graduates, regardless of respondent or non-respondent status; secondly, at the same time, non-respondents as a group had a higher incidence of marriage, separation and divorce than respondents. (It is pointed out that the usefulness of these findings is limited because length of time of marriage is not controlled.)

Conclusions

With regard to the majority of variables explored, dropouts did not appear to differ substantially from graduates—at least during these early years after leaving high school.

75. Sorensen, Mourits A. Low ability dropouts versus low ability graduates. *Personnel and guidance journal* (Washington), vol. 39, October 1960.

Country. U.S.A. *Type of study.* Analysis of field study data.

Educational level. Secondary.

Source of data/procedure. (i) Former students from a small Minnesota high school were chosen according to the following criteria: born between 1930 and 1934, out of school at least 5 years; having below-average measured intelligence (IQ of 95 or less or ACE score below the tenth percentile). (ii) Data was collected on a total of 15 graduates and 9 dropouts through: questionnaires mailed to traceable respondents and reliable members

of the community who knew the current status of the subjects. (iii) The post-school success of graduates and dropouts was rated on a 3-point scale as follows:

	Rating		*Rating*
Income		*Participation in church*	
$0 - $3,000	1	Inactive	1
$3,001 - $5,000	2	Attends regularly	2
$5,001 and up	3	Attends regularly and is a leader in church affairs	3
Civic participation		*Occupational level*	
Known arrests other than traffic violations	1	Unskilled	1
Votes but is inactive	2	Skilled	2
Votes and is a community leader or local government official	3	Professional	3

Findings

	Average scores	
	dropouts	*graduates*
Income	1.8	2.2
Church	1.7	2.1
Civic participation	1.6	2.0
Occupation	1.7	2.3
Over-all	1.7	2.15

76. Swanstrom, Thomas E. Out-of-school youth, February 1963. In: Schreiber D., ed. *Profile of the school dropout*. New York, Vintage Books, 1968.

Country. U.S.A. *Date*. 1963. *Type of study*. Analysis of field study data.

Educational level. Secondary.

Purpose of study. To ascertain the respective positions of dropouts and graduates in the labour force.

Source of data. Monthly survey (February 1963) of the labour force, conducted for the Bureau of Labor Statistics by the Census Bureau through its current population survey.

Findings

(i) Further training: high school graduates were 3 times as likely as dropouts to have entered some sort of training programme (accounting, secretarial, electrician, etc.) (ii) Unemployment: dropouts were twice as likely as graduates to be looking for work. Year-round employment was much more common among graduates. (iii) Job aspirations: unemployed dropouts seeking work were more willing than graduates to accept salaries of less than $40 a week for full-time work. Clerical work was sought much less frequently by both male and female dropouts than by their graduate counterparts.

77. U.S. Department of Labor. *Manpower report of the President: report on manpower requirements, resources, utilization and training*. Washington, U.S. Government Printing Office, 1963.

Country. U.S.A. *Type of study*. Analysis of aggregate data.

Educational level. Secondary.

Source of data. Special Labor Force Reports Nos. 21 and 22 and other Labor Department statistics on employment of graduates and dropouts.

Findings

(i) 350,000 students over age 16 dropped out of school between January-October, 1961; of these, 27 per cent were unemployed in October 1961 compared with only 18 per cent

of 1961 high school graduates; the dropouts' special difficulty in findings jobs was attributed not only to their limited education but to their relative youth (most were between 16 and 18). (ii) While unemployment declined among both groups as they grew older, dropouts continued to find themselves at a disadvantage in the work world; for example, those who had dropped out in 1959 had a rate of unemployment twice as high as that for 1959 graduates. (iii) Even when they did find work, dropouts obtained much less desirable jobs than high school graduates.

78 (24). U.S. Department of Labor. Bureau of Labor Statistics. *School and early employment experience of youth: a report on 7 communities 1952-57.* Washington, U.S. Government Printing Office, 1960. (U.S. Dept. of Labor Bulletin No. 1277)

See *Antecedents* entry for description of study. See also entry 80 (Wolfbein, Seymour L.) which is based on this survey (this abstract will deal principally with those survey findings not discussed by Wolfbein).

Findings

(a) *Marital and parental status at time of interview* (1 plus to 4½ years after leaving school).

	Married	*With children*
	%	%
Graduates	40	51
males	24	50
females	51	52
Dropouts	41	68
males	21	56
females	66	73

About 30 per cent of the married girl dropouts had two or more children compared with only 12 per cent of married girl graduates.

(b) *Outmigration.* Dropouts and graduates did not differ significantly with regard to this variable, e.g., 48 per cent of both male dropouts and graduates had left their home communities by the time of interview, frequently in order to enter military service.

(c) *Entry in labour market—first jobs.* See Wolfbein.

(d) *Job at time of interview.* (i) Among the 40 per cent of the school leavers who had changed jobs since entering the labour market some upgrading in occupation was evident for both graduates and dropouts; however, progress was greatest among graduates. (ii) It is suggested that the exposure of this sample to the labour market was too short for the gap in occupational status between dropouts and graduates to reach its fullest extent.

Occupation	*Male*		*Female*	
	dropouts	*graduates*	*dropouts*	*graduates*
	%	%	%	%
Sales	8	13	15	7
Service	6	2	16	4
Office work	2	7	16	72
Skilled and semi-skilled	36	49	9	6
Unskilled	35	18	37	3

(e) *Wages.* Graduation from high school made a substantial difference in earning power among both boys and girls (see also Wolfbein).

(f) *Unemployment.* See Wolfbein.

(g) *Part time work.* More common among dropouts than graduates, regardless of sex; more dropouts also worked longer hours.

(h) *Post high school training and job aspirations.* (i) Only half as many dropouts as graduates (10 against 20 per cent) had taken additional training after leaving school.

(ii) However, an equal proportion (12 per cent) had definite plans for future training. Of these, 40 per cent of the boys against 33 per cent of the girls planned courses leading to a high school diploma. (iii) The great majority of both dropouts and graduates appeared to regard their exit from high school as the end of their education. The job aspirations of both groups tended toward positions that were already within their reach.

(i) *Unaccounted-for time.* Time spent in unspecified kinds of activities outside of work, home responsibilities, military service, etc. since leaving school was twice as great among dropouts as graduates.

79. Wilson, Alan. Residential segregation of social classes and aspirations of high school boys. *American sociological review* (Washington), vol. 24, 1959.

Country. U.S.A. *Type of study.* Analysis of field study data.

Educational level. See below.

Purpose of study. To investigate the effect upon educational aspirations of high school students of the tendency of school districting to segregate youths of different social strata.

Source of data. A sample of 1,355 boys from eight high schools stratified according to the characteristic backgrounds of students, approximately as follows:

Schools	*Predominant SES of parents*	*Predominant educational level of parents*
Group A	high	high (85 % fathers and 90 % mothers high school graduates or "some college or more")
Group B	middle (lower white collar)	intermediate
Group C	low	low (54 % fathers and 45 % mothers "some high school or less")

Procedure. Evaluation of data included an examination of the influence of fathers' and mothers' educations upon student aspirations with regard to higher education.

Findings:

(a) Percentage of students aspiring to go to college by school groups and fathers' education:

Father's education	*School group*		
	A %	*B* %	*C* %
College graduate	88	73	73
Some college	79	68	58
High school graduate	74	51	35
Some high school	63	39	30
Grammar school or less	32	29	33

(b) Percentage of students aspiring to go to college by school groups and mother's education:

Mother's education	*School group*		
	A %	*B* %	*C* %
College graduate	87	77	67
Some college	87	54	53
High school graduate	74	54	35
Some high school	50	35	39
Grammar school or less	44	34	24

(c) Percentage of students aspiring to go to college by fathers' and mothers' education:

Fathers' education	*Mothers' education*		
	College %	*High school* %	*Less than high school* %
Some college or more	85	72	53
High school graduate	71	50	37
Some high school or less	40	38	31

Conclusions

The education of either father or mother had a strong independent effect upon students' aspirations. The data did not substantiate the notion that the mother's education is more influential than the father's—each made an independent and cumulative impact of about the same degree on the child's aspirations. (The only asymmetrical effects manifested themselves in the most extreme, and rarest, combinations, e.g. if the father had not completed high school, the mother's level of education made little difference.)

80. Wolfbein, Seymour L. Transition from school to work: a study of the school leaver. *Personnel and guidance journal* (Washington), vol. 38, October 1959.

Country. U.S.A. *Type of study*. Analysis of field study data.

Educational level. Secondary (high school graduates vs. dropouts from grades 8-11).

Source of data/procedure. Bureau of Labor Statistics survey of 10,000 dropouts and 12,000 graduates in seven U.S. communities. A subsample of 6,500 was chosen for follow-up and data on their work experience since leaving school was obtained through personal interviews, either with students themselves or with families and neighbours (see also entries 24 and 78 for a more detailed report on the Bureau of Labor Statistics survey).

Findings

(a) Dropouts did not differ from graduates in the readiness with which they found employment after leaving school: 70 per cent of the boys and 80 per cent of the girls in both groups got work within a month after beginning to look.

(b) *Occupational distribution*. (i) With regard to kind of job obtained, girl dropouts differed sharply from girl graduates: while, 64 per cent of graduates entered white-collar clerical jobs, only 15 per cent of dropouts did so. The great majority (73 per cent) became waitresses, sales clerks and unskilled labourers. (ii) The gap between male dropouts and graduates was much narrower. About 37 per cent of the dropouts started work in unskilled factory jobs or as filling station operators or labourers against 28 per cent of graduates. Approximately half of each group went into various clerical and semi-skilled work. [1] (iii) Girl graduates had the advantage of having completed commercial courses which were highly related to job requirements; among the males, however, very few graduates or dropouts had had extended vocational training.

(c) *Earnings*. Among both sexes, graduates did much better than dropouts in terms of earnings. For example, four times as many male dropouts as graduates were at the lower end of the wage scale (i.e. earning less than $40 per week); at the upper end of the scale, only 20 per cent of the dropouts earned $80 per week or more compared with 31 per cent of the graduates.

(d) *Unemployment*. The table shows the percentage unemployed at time of interview. Deeper investigation in some areas indicated that boy dropouts were averaging three times as much unemployment as graduates since leaving school.

	Boys		*Girls*	
areas	*graduates*	*dropouts*	*graduates*	*dropouts*
	%	%	%	%
1	4	22	5	26
2	3	27	5	35
3	8	24	7	35
4	9	18	12	50
5	5	10	3	12
6	8	25	8	35
7	8	13	1	10

1. These figures relate to first jobs—it is emphasized that, according to other data, greater differences between graduates and dropouts develop with time.

81. Youmans, E. Grant. The rural school dropout: a ten-year follow-up study of Eastern Kentucky Youth. *Bulletin of the Bureau of School Service*, College of Education, University of Kentucky (Lexington), vol. 36, September 1963.

Country. U.S.A. *Date*. 1960. *Type of study*. Analysis of field study data.

Educational level. Secondary (high school graduates vs. dropouts from grades 7-11).

Purpose of study. To compare the post-school experiences, attitudes and aspirations of rural high school graduates and dropouts—with special attention to the experience of individuals who had moved to urban areas.

Source of data/procedure. A joint study by the U.S. Department of Agriculture and the University of Kentucky Agricultural Experiment Station. Using grade 8 enrolment lists for the school year 1949-50 in 11 rural counties of Eastern Kentucky, an attempt was made 10 years later to follow up as many of the 757 original enrollees (males only) as possible. Of these, 307 (150 of whom were in urban areas) were located and interviewed personally.

Findings

(i) In rural areas, amount of formal education significantly affected over-all occupational achievement; in urban areas it did not. However, in both urban and rural areas, a greater proportion of high school graduates than dropouts held higher status white-collar jobs. (ii) Regardless of residence, no significant variation appeared between dropouts and graduates with regard to: gross annual income;[1] unemployment; job satisfaction. (iii) Neither rural nor urban graduates and dropouts differed on general achievement orientation; higher job aspirations and stated intentions for realizing them were more characteristic of graduates than dropouts only in the country. (iv) Among subjects living in cities, educational level was not associated with membership in community organizations (such as labour unions); but in rural areas, significantly more graduates than dropouts did belong to organizations (mainly churches). (v) Of the men in urban centres 55 per cent expressed a desire to move elsewhere; however, this feeling did not correlate with the amount of schooling they had had. (vi) Dropouts registered substantially more pessimism than graduates—in both residential categories—about the world and their place in it (as reflected in alienation and estrangement from others, confidence in community leaders, belief in the American creed of progress and achievement, faith in the future). (vii) In estimating " how much formal education a young man needs these days ", rural graduates and dropouts did not differ; but in cities, substantially more graduates felt that the young man should complete college. In both urban and rural groups, educational attainment affected the wish to do things differently if given a chance to start over, with significantly more dropouts expressing such a desire.

Conclusions

The principal inference is that the rural school system of Eastern Kentucky is not well equipped to prepare its youth for employment in urban areas (based mainly on the finding that so many of those in urban centres—both graduates and dropouts—expressed a desire to return to rural Kentucky).

82. Ecole pratique des hautes études. Centre d'étude des techniques économiques modernes. Le coût et les résultats de l'éducation. Compte rendu des travaux effectués et projet d'étude du Groupe de recherches sur l'économie de l'éducation. Paris, 196-? (Section I, B).

Country. France. *Date*. 1964-ongoing. *Type of study*. Analysis of field study data.

1. These findings appear to contradict many previous studies correlating graduation with higher income and occupational status. It is suggested in the present study that they be viewed with reservations due to the probability that *over a longer period of time* the graduates will earn more money than the dropouts.

Educational level. Primary, secondary, post-secondary.

Purpose of study. To determine, as part of a larger study of educational costs and returns, the relationships between level of education and salary levels in selected areas of employment.

Source of data. A survey covering 100,000 employees in 10 firms representing four sectors of economic activity: manufacture of paper and cartons, textiles, electronics and small business. The preliminary analysis presented here deals with a sub-sample of 3,000 representing a population of 60,000 persons [1] working in either electronics or small business.

Findings

(i) Educational levels in the business sector, with an average of 10 years' schooling per employee, proved to be substantially lower than in electronics (where 12 years' schooling was the average); 10 per cent of the electronics sample had done *études supérieures* (i.e. had completed 16 years' schooling) compared with only 6 per cent of business employees. (ii) In electronics, access to management levels was determined above all by education; in business, however, access to higher levels opened up with age and seniority—without a minimum level of education being demanded; a man with no more than a Primary School Certificate could attain the middle levels of management by age 30 and the upper levels by age 50. Indeed, 22 per cent of those holding managerial positions in business had only 8 years or less of school; in electronics, on the other hand, only 5 per cent of those at this educational level were able to reach management status.

Conclusions

The predominant factor in the determination of salaries appeared to be education in the electronic sector and age in the business sector.

83 (32). Jackson, Brian; Marsden, Dennis. *Education and the working class.* London, Routledge and Kegan Paul, 1962.

See *Antecedents* entry for description of study.

Findings

All but two of the early leavers entered clerical occupations. Although they had rejected the middle-class values of the grammar school, their experience there had a significant effect on their subsequent position within the town's social hierarchy; they were unable to merge again into the working class. Friendships with other grammar school boys and girls [2] became the dominant associations in their social lives. Some efforts were made to obtain further formal education but were generally abandoned.

Conclusions

Even the incomplete grammar school education to which the early leavers were exposed appeared to have a lasting effect on their lives, particularly in severing them irrevocably from the working-class world.

84. Kaplan, I. I. Kak zavisit proizvoditel'nost' truda ot urovnja obrazovanija [The relationship between productivity and level of education]. *Skola i prizvodstvo* (Moskva), no 2, fevral 1967. [3]

1. Unfortunately this rather brief summary report does not include a detailed description of the study population, number of variables analysed, etc.

2. Whether these were also early leavers is unfortunately not indicated.

3. This summary is based on CIRF Abstract No. 3B/14998 (vol. 6, 1967).

Country. U.S.S.R. *Date*. 1965. *Type of study*. Analysis of field study data.

Educational level. 5-10 years general education.

Purpose of study. To examine the effect of differing levels of general education upon the performance of workers in several Moscow electrical engineering firms.

Source of data/procedure. Various aspects of performance were compared for workers matched on occupation (carrying out identical operations and using the same equipment), skill level and years of experience, but differing in educational background (having from 5 to 10 years' general schooling).

Findings

(a) *Productivity*. In general, up to the age of 45, productivity among machine tool setters continued to rise at a rate that was directly related to their level of education. On the average, the productivity of workers who had completed 8 years of schooling was 35 per cent higher than that of co-workers with only 5 years' education.

(b) *Damage to tools*. Workers with less education (5 to 7 years) were mostly likely to cause damage to lathes and drilling machines; their inability to repair the equipment resulted in a great deal of idle time. Those having 9 or 10 years' education, on the other hand, carried on their work with a minimum of idle time so incurred.

(c) *Competence in related trades*. On the average, each additional grade of general education completed increased by 50 per cent the rapidity with which workers were able to master skills and knowledge required for trades related to their own occupation.

(d) *Work methods*. Findings indicated a strong correlation between amount of schooling and the contribution to working methods: 5 per cent of workers with 5-6 years of schooling helped to rationalize production compared with 25 per cent with 9-10 years of schooling.

(e) *Promotion and upgrading*. The number of years it took for a machine-tool setter to be promoted to a higher skill category was inversely related to his educational level: with 5-6 years of education it took 5 years; with 8 years it took 2-3 years; with 10 years it took 1 year.

85. Kotljar, A.E. *Rabočaja sila v SSSR* [Manpower in the USSR]. Moskva, Izdatel'stvo " Mysl' ", 1967. [1]

Country. U.S.S.R. *Type of study*. Analysis of field study data.

Educational level. Up to 10 years general education.

Source of data. Research carried out among workers in Azerbajdžan petroleum industry.

Findings

(i) Workers' progress in skill levels correlated positively with the amount of schooling they possessed. Of all those reaching the rather high skill level categorized as " 5 ": 59.5 per cent had 10 years' general education; 15.0 per cent had 7-9 years; only 25.0 per cent had 6 years or less. (ii) Level of general education also affected the amount of time spent by workers in acquiring the practical experience necessary for higher skill levels. For example, workover drillers having only 5 years' general education had averaged 13 years and 4 months to work up to their current skill level—while drillers with 8 years' general education required an average of only 8½ years to achieve the same level.

1. Summarized from CIRF Abstract No. B/17373 (Vol. 7, 1968).

86. Kozlova, D.I. The influence of education on the labor of textile workers. In: Noah H.J., ed. *The economics of education in the U.S.S.R.* New York, Frederick A. Praeger, 1969.

Country. U.S.S.R. *Type of study.* Analysis of field study data.

Educational level. Primary and secondary (grades 7-10).

Purpose of study. A preliminary investigation of the relationship between education and productivity among workers (having 7-10 years' education) in two textile enterprises: a cotton combine and a weaving factory.

Source of data/procedure. (i) The survey was restricted to workers in the " basic trades " of each enterprise (i.e. spinning and weaving) who were comparable in terms of type of work done and equipment used. (ii) In order to control for the influence of extensive work experience, the sample included only those aged 18-25.

Findings

(i) At the weaving factory the general educational level of the workers proved to be higher (60 per cent possessed grade 9-10 education and 40 per cent grade 7-8 education) than at the cotton combine (where only 47 per cent had grade 9-10 education and 53 per cent had grade 7-8). In consequence, the weaving factory workers were more likely: to fulfill or over-fulfill production norms; to master ancillary skills and new types of equipment more rapidly; to avoid spoilage in production. (ii) Workers with grade 8 education were most active in production; those who had completed 9 to 10 years' schooling had lower participation rates. (iii) Interviews with workers indicated that higher educational levels produced a certain intellectual dissatisfaction with work. (iv) Individual-team training seemed to be the best preparation for work in the trades surveyed. The alternative, production training in factory or general secondary schools, appeared—because of organizational inadequacies—to be less effective. For example, school graduates often had to be retrained on the job.

87. Mikulich, A.P. The influence of different levels of education on labor productivity: a calculation. In: Noah, H.J., ed. *The economics of education in the U.S.S.R.* New York, Frederick A. Praeger, 1969.

Country. U.S.S.R. *Date.* 1962-63. *Type of study.* Analysis of field study data.

Educational level. Primary and secondary (grades 7-10).

Purpose of study. To determine the influence of different levels of general education on the productivity of piece-workers in a cross section of occupations.

Source of data. 237 workers in an electrical equipment factory and 388 workers in a machine construction factory, all having from 7 to 10 years' schooling.

Procedure and findings

(a) Workers were grouped according to level of qualifications (Skill Grades I or II), and within each skill grade by years of education completed. Average fulfillment of production norms was calculated from output data for each subgroup.

(b) In order to control for the effect of experience, a coefficient of influence of years of work experience was calculated separately for each educational grade group by dividing the average index of over-fulfillment of norms by the average years of work experience. Comparison of these coefficients of influence established the presence of a definite positive relationship between the workers' educational level and their output. (i) Thus for electrical workers in Skill Grade I, for example, over-fulfillment of norms increased by 3.44 per cent per year of experience for men with a grade 7 education, while for those with a secondary education (10 years) over-fulfillment increased by 5.67 per cent per year of experience. Secondary education also heightened productivity in Skill Grade II,

although the difference it made could not be considered statistically significant. (ii) Among machine construction operatives, however, coefficients of influence varied significantly by education in both skill grades: in Skill Grade I the percentage increase in over-fulfillment of production norms per year of experience was 6.44 per cent for 7 years' education and 8 per cent for 10 years' education; in Skill Grade II the increase was 5.30 per cent for 7 years and 7.50 per cent for 10 years.

(c) A look at the education-output relationship from a somewhat different angle, i.e. differences in norm fulfillment by level of education and by average length of work experience for each educational group, showed that among electrical workers in Skill Grade I averaging 4.4 years experience, the level of fulfillment of norms for those with 7 years' schooling was 115.1 per cent, for those with 10 years, 124.8 per cent. Within the other skill grades of both factory groups, norm fulfillment varied as follows: (i) electrical workers at Skill Grade II, with an average of 5.3 years' experience had a norm fulfillment of 127.6 per cent with 7 years' schooling and 130.3 per cent with 10 years; (ii) machine construction workers at Skill Grade I, with an average of 2.4 years' experience had a norm fulfillment of 124.9 per cent with 7 years' schooling and 135.3 per cent with 10 years.

(d) Calculation of regression coefficients of labour productivity and work experience for each educational group within the same skill grade showed that increases in schooling made only a very small difference in the productivity of workers with no experience. But among experienced workers, norm fulfillment per year of experience did indeed rise significantly with level of education.

Conclusions

While the study findings could not pretend to describe the actual dependence of labour productivity on level of general education, they did tend to indicate an association between schooling and output.

88 (35). Schwartzweller, Harry K. Educational aspirations and life chances of German young people. *Comparative education* (Oxford), vol. 4, no. 1, November 1967.

See *Antecedents* entry for description of study.

Findings

(a) The type of schooling received by students had a definite effect on their plans and aspirations. (i) Well over two-thirds of the elementary school students expressed no interest, felt no aspiration, had formulated no plan to pursue a level of education higher than the "normal" and mandatory, trade school apprenticeship. Only 18 per cent of the boys and 25 per cent of the girls were planning on other kinds of further education (generally specialized technical). While 13 per cent of both boys and girls indicated an interest in university study, only 4 per cent of the girls and 7 per cent of the boys expressed a desire to attain the high school level [1] (*Abitur*) necessary for university admission. (ii) Among secondary school pupils, on the other hand, 67 per cent of the boys and 52 per cent of the girls indicated intentions of pursuing a course of study leading to the *Abitur*; similar proportions wished to study at a university. Of those not planning an academic career, 22 per cent of the girls and 11 per cent of the boys had taken steps to enter a higher technical school of some sort. Most of the remainder were going to begin on-the-job training as apprentices.

(b) Once a student had been channelled into a level of schooling his aspirations were further influenced by other variables. Among girls, "recognized ability" (i.e. grades) was more important than SES. Goal-setting among boys, however, was more significantly affected by social class origins. For example, an elementary school boy of white collar

1. Attainment of high school level for elementary students requires making-up many academic subjects not included in the elementary curricula.

background who was not an exceptional student was as likely to plan to go beyond the trade school apprenticeship level as one from a manual worker family who had an exceptional academic record. It thus appeared that, within a given level of schooling the distribution of educational opportunities was equitable for girls but not for boys.

Conclusions

(i) The course of study " chosen " at age 10 or 11 in effect sets the upper limits on a child's educational and occupational possibilities. For secondary school pupils, the path toward the upper levels is open and, more importantly, structurally continuous. For elementary school pupils, on the other hand, the path toward the upper levels lacks structural continuity. (ii) In making the crucial secondary/elementary choice, lower SES children and their families are at a disadvantage since the sociocultural climate in which they live de-emphasizes the value of a general education and thus creates a self-imposed barrier to upward mobility.

89. Zhil'tsov, E.N. Statistical methods of evaluating the complexity of labor. In: Noah, H.J., ed. *The economics of education in the U.S.S.R.* New York, Frederick A. Praeger, 1969.

Country. U.S.S.R. *Date.* 1960's. *Type of study.* Analysis of field study data.

Educational level. Primary and secondary (grades 4-10).

Purpose of study. To calculate the relative influence upon worker qualifications of certain basic training factors: general education, specialized training and work experience.

Source of data/procedure. A sample of 242 workers, aged 25-30, from the metal repair shops of an oil processing works. (i) Workers' qualifications were rated and expressed as skill grades ranging from 3 to 6; (ii) analysis of variance was used to measure correlations between the skill grades and general education of workers (range 4-10 years), production experience (1-11 years), specialized training (dichotomized simply as " with "/ " without "); (iii) the share of each factor in determining qualifications was calculated.

Findings

(a) *Identification of significant relationships.* (i) General education. A direct and significant (.01 level) relationship was demonstrated between worker qualifications and amount of general education. The level of education (grades 4 to 10) and the related skill grade (3 to 6) were as follows: grade 4—3.0; 5—3.2; 6—3.7; 7—4.1; 8—4.3; 9—4.4; 10—4.5. (ii) Specialized training. Analysis of a sub-sample of 123 worker-operatives (i.e. only those having 10 years' general education) showed that those with specialized education had significantly higher skill ratings (average 4.70) than those without (average 4.10). (iii) Production experience. Here the base for analysis was restricted still further, i.e. to only those worker-operatives (N = 102) having 10 years' general education plus specialized training. Production experience (from 0-1 to 11 years) and worker qualifications (skill grades from 3 to 6) were significantly linked: 0-1—3.7; 2—4.1; 3—4.1; 4—4.5; 5—4.9; 6—4.4; 7—4.9; 8—5.2; 9—5.5; 10—5.1; 11—5.6.

(b) According to calculations of relative influence, general education accounted for 9.7 per cent of the total variation in qualifications, specialized training for 7.5 per cent and production experience for 37.0 per cent. Thus the combination of these three training factors determined 54.2 per cent of skill variations, with production experience being by far the most crucial factor (3.7 times as important as general education). The remaining variations (45.8 per cent of the total) were ascribed to other factors not studied, such as " responsibility, initiative, etc. ".

90 (36). Abernethy, David B. The unemployment market: perceptions of Southern Nigerian school children. Stanford University, n.d. [mimeo]

Country. Nigeria. *Date.* 1964. *Type of study.* Discussion (see *Antecedents*) and analysis of field study data.

Educational level. Primary and secondary.

Source of data. A survey of 1,360 school children—20 pupils from the top grade of each of 68 schools (primary, secondary modern and grammar) selected from 9 geographical zones in Southern Nigeria.

Findings

(i) Children in all grades tended to be optimistic about their chances both for further education and for obtaining work upon leaving school. (ii) Their occupational preferences were as follows: primary school pupils favoured teaching and nursing; secondary modern students—teaching, nursing and clerical work; the greatest range was found among grammar school students, whose choices included professional, minor medical, clerical and teaching positions. (iii) Students' estimates of income expected after school increased with the amount of education they had. (iv) Success in continuing their schooling or in getting a job was viewed at all levels more as a matter of having money and "connexions" rather than intellectual capacity or academic qualifications. (v) Primary school children, who would be most affected by unemployment, tended not to see it as a distinct problem, whereas among grammar school children, (the least likely to have to worry), unemployment was regarded by over 50 per cent as Nigeria's greatest problem; as their educational level rose, students tended increasingly to blame government for unemployment.

91. Abernethy, David B; Combe, Trevor. Education and politics in developing countries. *Harvard educational review* (Cambridge, Mass.), vol. 35, no. 3, Summer 1965.

Type of study. Discussion.

This rather general discussion includes a brief consideration of political participation among primary school leavers and dropouts. The principal argument is that these groups are not necessarily "political dynamite". They stand at the perimeter of significant political events—hardly at the centre. Some school leavers join political party youth brigades and serve as minor party activists. Their involvement in political disturbances is likely to take the form of arson, assault and intimidation—rather than revolution.

92. Anderson, John E. Primary school leavers in rural areas. Paper presented at University of East Africa Social Science Conference in December 1966. [mimeo]

Country. Kenya. *Date.* 1964-66. *Type of study.* Analysis of field study data.

Educational level. Primary (grade 7).

Purpose of study. A general look at destinations of primary school leavers and a more specific investigation of rural leavers living at home without wage employment.

Source of data. Follow-up studies of two small groups of primary school leavers in two rural areas of Central Kenya (Tetu and Kibuyu).

Procedure. (i) Tetu. Sixteen months after leaving primary school, 203 male leavers were traced through former headmasters, teachers and schoolmates. Whenever possible, the leavers and their parents were interviewed. Special attention was given to 47 boys who lived at home and had no paid jobs. (ii) Kikuyu. An informal educational "club" was started among a group of unemployed 1964 school leavers living at home. Diaries kept by club members [1] and conversations were used to develop a profile of the kind of life they led.

1. Number of members varied but is indicated generally to be quite small (data are available for only 12 people).

Findings

(a) *Tetu—destinations of primary leavers.* (i) 16 months after leaving school, 15.5 per cent of the leavers were back in primary school repeating Standard VII, mainly with the objective of obtaining a K.P.E. Certificate and/or better grades and consequently a secondary school place; (ii) 42 per cent had gone on to some type of secondary school; (iii) 9 per cent of the 203 leavers had found paid work—most of them had left home in order to do so; (iv) 32 per cent were unemployed and one-quarter of these were living at home.

(b) *Kikuyu—unemployed leavers living at home.* (i) Most boys worked on the family land, ran errands and helped in household maintenance in return for the keep provided by their parents. Respect for parents was sustained, although family tensions increased as boys grew older and sought more independence. (ii) Sporadic efforts were made to obtain regular wage employment. Most boys also did varying amounts of casual work. (iii) Several belonged to a Young Farmers Club. However, land shortages diminished the possibility of their realizing any desire to become farmers. (iv) All the subjects were interested in education, both in terms of its status value and its use as means to mobility. Those who had failed to obtain their leaving certificates were anxious to retake the examinations. Several boys enrolled in correspondence colleges. (v) Although a certain degree of frustration seemed inevitable under such life conditions, the boys manifested very little overt hostility to any particular person or group.

93. Callaway, Archibald. Unemployment among African school leavers. *Journal of modern African studies* (London, New York), no. 1, 1963.

Type of study. Discussion.

An immense broadening of the educational base throughout much of Africa has resulted in a constantly growing surplus of primary school leavers. The traditional economies of East, West and Central Africa (75 per cent of whose populations are engaged in agriculture) are unable to absorb them. The effects of primary school education on the young African school leaver include: (i) disruption of his traditional-rural orientation, instilling the belief that his future lies not with village and farm but with the city and the exchange economy; (ii) development of new horizons and expanded ambitions; (iii) inadequate training. The primary leaver heads for urban areas where his youth and lack of qualifications for the jobs he desires plus the limitations of the labour market combine to make his position extremely difficult. He suffers from long-term unemployment and poor living conditions, and as he becomes disillusioned and desperate, he is more likely to engage in delinquency. The gap between aspirations and realization makes him susceptible to political agitation. Collectively, all of this means mass unemployment, urban overcrowding, tremendous wastage of human resources, and a potentially dangerous instability.

Conclusions

Recommendations for intervening in this process include: (i) reduction of rate of expansion of primary school opportunities in favour of developing secondary, technical and university education; (ii) the improvement of agriculture so as to attract more school leavers into what must for some time remain the dominant sector of the economy; (iii) development of transitional enterprises (small business, crafts, etc.); (iv) government-sponsored work and training programmes for primary school leavers.

94. Callaway, Archibald. Unemployment among school leavers in an African city. Paris, Unesco: International Institute for Educational Planning, 1966. [mimeo]

Country. Nigeria. *Date.* 1964. *Type of study.* Analysis of field study data.

Educational level. Primary and secondary (grades 6-9).

Source of data. A study of unemployed male school leavers based on a sample survey of households in three representative sections of Ibadan, Nigeria.

Findings

Of the total sample population of 4,450 one-quarter of the male labour force were not working; 78 per cent of these unemployed men were school leavers. (i) Length of unemployment (time spent in city seeking job): less than 1 year, 35 per cent; 1-2 years, 21 per cent; 2-3 years, 26 per cent; 3+ years, 13 per cent. (ii) Previous working experience: never had a job, 58 per cent; had held one job, 26 per cent; had held more than one job, 16 per cent. Those who had held (and lost) one or more jobs expressed feelings of insecurity regarding employment. (iii) School leavers' assessment of their personal economic situation was realistic enough but their understanding of the regional/national situation was considerably less; the burden of improving the employment problem was invariably placed on government. (iv) Realism about job aspirations and willingness to revise them downwards was directly related to the degree of economic pressure on the individual. (v) More than half the men had come from outside Ibadan and many of these migrants lodged with relatives in the city; thus the close family system facilitated the village-city transition for school leavers, although it frequently meant a heavy burden for city relatives. (vi) School leavers who migrated from rural areas often also maintained close ties with home villages (but there were relatively few permanent moves back to the country). (vii) Of the unemployed leavers 40 per cent were engaged in further education through unofficial training institutions or by correspondence; the most popular courses were those in typing.

Conclusions

In spite of the tremendous problems created by the expansion of primary education encouragement may be drawn from the evidence that primary education does raise productivity and that therefore many employers prefer to hire school leavers.

95 (40). Elkan, Susan. Primary school leavers in Uganda. *Comparative education review* (New York), vol. 4, no. 2, October 1960.

Country. Uganda. *Date.* 1958. *Type of study.* Analysis of field study data.

Educational level. Primary (grades 5 and 6).

Source of data/procedure. A survey of 1,238 children who had been enrolled in 1957 in primary grades 5 and 6 at 17 schools randomly selected from three Uganda districts (urban and rural); 206 of these children left the school system altogether (including 34 who were untraceable). A research worker visited the sample schools in order to ascertain from headmasters, teachers and former schoolmates what had happened to the pupils enrolled in grades 5 and 6 the previous year. This information was used as a starting point for follow-ups based (apparently) on home interviews with dropouts and their families.

Findings

(a) *Boys* (N = 135). (i) Only 14 of the male dropouts were employed in or learning a trade and only three were helping relatives in business. The majority (91 of them) were at home—farming, etc. (ii) Further investigation of how this majority actually spent their time revealed that a good deal of it was occupied by searching for paid work or visiting friends. (iii) Although only four of the sample boys were currently looking for work in town, others had apparently already made similar attempts and subsequently returned to the farm. (iv) In the rural areas, considerable dissatisfaction was expressed over the minimal contribution the school leavers were making to farming.

(b) *Girls* (N = 71). Six of the girls were employed or learning a trade. The great majority (57) were at home; 6 of these were married and 16 were unmarried but pregnant.

Conclusions

The 5 or 6 years of education seemed to make little difference to these school leavers in terms of the occupational choices available to them.

96 (41). Foster, Philip J. *Education and social change in Ghana.* London, Routledge and Kegan Paul, 1965. Chapter VI. [1]

Country. Ghana. *Date.* 1959. *Type of study.* Analysis of field study data.

Educational level. Middle school (form IV).

Source of data/procedure. Sample comprised 210 boys in 9 randomly selected middle schools in Accra due to leave school the following month—the majority were not going on to secondary school.[2] The students were asked: (i) to indicate jobs they would prefer if they could choose absolutely freely; (ii) what sort of work they in fact expected to get.

Findings

(a) *Preferred jobs:* artisans and skilled workers, 51 per cent; white-collar, 30 per cent; farmers/fishermen, 10.5 per cent.

(b) *Jobs expected:* semi-skilled or unskilled, 35.2 per cent; artisans and skilled workers, 22.4 per cent; white-collar, 21 per cent; petty trade business, 9.5 per cent; farmers/fishermen, 6.7 per cent.

Conclusions

These results do not substantiate the commonly held belief that school leavers prefer white-collar occupations to all others and are unwilling to work with their hands. Instead, the boys studied had a moderate level of aspirations and expectations and a realistic view of the occupational structure. However, in spite of their reasonable expectations most middle school leavers will not find employment due to the nature of the labour market they are entering.

97. Hunter, Guy. *Manpower, employment and education in the rural economy of Tanzania.* Paris, Unesco International Institute of Educational Planning, 1966. (African research monographs)

Country. Tanzania. *Date.* 1965. *Type of study.* Analysis of aggregate data and of field study data.

Educational level. Primary (grades 7 and 8).

Purpose of study. To analyse employment opportunities for Tanzanians having no education beyond the primary level.

Source of data. National education and labour statistics and projections, supplemented by impressions derived from a month-long survey of primary leavers in five regions.

Findings

(i) National planning projections for 1969 forecast a total of 23,000 new jobs—for which 40,000 grade 7 leavers would have to compete with 243,000 sixteen-year-olds entering the labour market as well as with unemployed adults and leavers from previous years. (ii) It was estimated that approximately 25 per cent of these 40,000 would be able to find paid employment each year; the rest would have to be absorbed into the rural economy. (iii) Entry levels for training programmes have risen steadily; these opportunities grow increasingly beyond the reach of the grade 7-8 leaver. (iv) The regional

1 Field study reported in this chapter differs from that of Chapter VII (entry 41).

2. Previous figures given by Foster indicate that only 5.3 per cent of middle school pupils continue to secondary school.

survey revealed a widespread feeling among Tanzanian officials and others that primary leavers were extremely unwilling to return to work on the farm. This attitude was frequently attributed to the type of primary education they had received. (v) Rural primary leavers tended to leave their villages to seek work in the towns, where they generally stayed with relatives while job hunting. Failure often forced their return to the village. However, once casual local employment (e.g. for neighbouring farmers) enabled them to earn a bit of money, many set off for the towns a second time, only to be defeated again.

98. Jorgensen, Erling. Utilization of the graduates from technical and vocational training institutes in Tunisia. (Report of a sample survey conducted by Ford Foundation in co-operation with the Ministry of Youth, Sport and Social Affairs, Tunisia). Tunis, Ford Foundation, 1966. [mimeo]

Country. Tunisia. *Date*. 1965. *Type of study*. Analysis of field study data.

Educational level. From 9 to 14 years schooling.

Purpose of study. To examine relationships between the level and type of technical education received and the following variables: (i) current occupation—to what extent were technical graduates actually using their education in the jobs for which it was intended?; (ii) attitude toward white-collar compared with technically oriented/blue-collar occupations; (iii) other aspects of job experience, including use of public placement service to obtain employment.

Source of data/procedure. The survey was restricted [1] to technical graduates from two major educational channels: (i) from vocational training programmes under the Ministry of Social Affairs—a random sample of graduates of *Centres de formation professionnelle pour adultes* (FPA), and *Centres de perfectionnement professionnel* (CPP) (i.e. lower and higher levels of vocational training); from technical education provided by the Ministry of Education within the regular school system—a non-random sample (stratified by residence, type of education and different branches of technical education within each school) of graduates of *Collèges moyens* (CM) (lower secondary technical school) and *Lycées techniques* (LT) (higher secondary technical school). The instrument used was a questionnaire submitted to 815 respondents; valid data was obtained on 641 of them.

Findings

(a) *Characteristics of respondents studied*. Age, 18-25; sex, 624 males and 17 females; marital status, 85 per cent single and 15 per cent married; background, generally urban (80 per cent born in towns of 2,000 plus inhabitants); years out of school, from 1 to 4; father's occupation (in percentages)—agricultural worker or day labourer 30, independent farmer 15, manual worker 14, clerical or sales 13, shopkeeper 18, liberal occupation (including administrative jobs) 4; average total years of schooling—FPA (N = 102) 9-11 years, CPP (N = 209) 9-11 years, CM (N = 187) 11-12 years, LT (N = 143) 14 years.

(b) *Current occupation*. (i) Further education: of the total sample, 19 per cent were engaged in some sort of further education; the most educated group, the *lycée technique* graduates, seemed to a very high degree to consider their education as preparation for university and high school studies (nearly 60 per cent of them were students as compared with 17 per cent of *collège moyen* graduates and less than 5 per cent of FPA and CPP graduates). (ii) Unemployment: unemployment was highest (35-40 per cent) among FPA graduates with lower level vocational training while for the CPP graduates, averaging the same amount of schooling but having completed more advanced vocational training, there were only 5-6 per cent unemployed; LT and CM graduates had unemployment

1. Types of institutions excluded: very elementary pre-apprenticeship schools, agriculture-oriented schools and the most advanced type of technical education (*Cours de promotion supérieure de travail*).

rates of approximately 3 per cent and 12 per cent respectively. (iii) Occupational distribution: the majority of the actively employed technical graduates were in occupations corresponding very closely to the technical education received; the correspondence between technical training and current job appeared to be strongest among FPA and CPP graduates—who tended to stay within the specialities for which they had been prepared—and considerably weaker among those from lower secondary technical schools (CM) who were more widely distributed among the various occupations; the LT and CM graduates—the two groups who had obtained the most education—were the most likely to be drawn off into teaching or white-collar work (it is suggested, however, that not all of these positions were as unrelated to their technical background as might at first be supposed).

(c) *Attitudes.* (i) Regarding white-collar compared with blue-collar jobs: the pattern for the group as a whole indicated an over-all preference for blue-collar occupations; at the same time, the attitudinal data reflected a stronger inclination toward white-collar positions than the graduates' actual occupational choice seemed to do—particularly among LT and CM graduates; favouring of white-collar jobs seemed much more common among LT and CM graduates. (ii) Ideal occupational status: public employment attracted the greatest percentage of graduates as a whole—32 of LT graduates, 58 of CM, 57 of CPP, 70 of FPA; self-employment was favoured by only 10 per cent of the group as a whole and was most popular with FPA and CPP graduates.

Conclusions

The pattern of current occupations of the graduates corresponded very well to the technical education received. There was no general bias towards white-collar jobs—the data did not support the hypothesis that Tunisia's scare supply of technically trained manpower tended to seek white-collar employment.

99. McQueen, Albert J. Aspirations and problems of Nigerian school leavers. Kampala, East African Institute of Social Research, 1963. [mimeo]

Country. Nigeria. *Type of study.* Analysis of field study data.

Educational level. Primary and secondary.

Source of data/procedure. Preliminary results of an ongoing study of 876 employed and unemployed male leavers from primary and secondary schools in Eastern and Western Nigeria. School leavers were located through former headmasters, through registration at Federal Labour Exchanges and places (such as motor pools) where they tended to congregate. Information on the educational and occupational aspirations of the boys was obtained through questionnaires and participant observation.

Findings [1]

(a) *General ideas on meaning of success in life.* In a sample of 630, educational attainment and material and financial possessions were most frequently mentioned as criteria of success; 60.3 per cent of these criteria could be categorized as " achievement-oriented " (it is hypothesized that achievement orientation correlates positively with length of exposure to western education).

(b) *Educational aspirations.* In a sample of 669, 84.3 per cent of all leavers (77.7 per cent of primary leavers, 92.8 per cent of secondary) expressed a wish to further their education; 75 per cent of those indicating such ambitions were actually engaged in some kind of studies (private, correspondence or evening school). The likelihood of continuing education increased with amount of schooling already possessed—thus 91.1 per cent of grammar school leavers were going on compared with 58.3 per cent of primary leavers.

1. For various subsamples only—due to fact that analysis had not been completed.

(c) *Occupational aspirations.* In a sample of 206, it was found that secondary school leavers preferred higher status occupations (84.1 per cent desired top professional or white-collar jobs) than primary leavers (37.6 per cent of whom wanted comparable jobs). The latter more often (42 per cent) favoured skilled and semi-skilled work. Both groups showed considerable willingness to revise job expectations downward if necessary.

(d) *Job ratings.* The rating of various occupations by 114 unemployed primary leavers revealed two significant points: factories and factory work were very highly regarded, being equated with modernization, high wages and large-scale employment; school leavers were not opposed to farming *per se*, 67.3 per cent expressed strong interest in modern farming compared with only 23.4 per cent for traditional farming.

(e) *Unemployment as an issue.* In a sample of 477, 58.2 per cent of primary and secondary leavers blamed government for unemployment among school leavers.

Conclusions

The popular contention that school leavers are hindered by unrealistically high aspirations appeared to be negated by these research findings.

100. McQueen, Albert J. Education and marginality of African youth. *Journal of social issues* (Ann Arbor), vol. 24, no. 2, 1968.

Country. Nigeria and Africa generally. *Type of study.* Discussion and analysis of field study data.

Educational level. Primary and secondary.

Source of data. (i) An attitudinal survey (conducted in 1962) of 876 male primary and secondary school leavers in Nigeria; (ii) a wide selection of earlier related research.

Findings

African schools today are only partially accomplishing the crucial task of re-orienting their students from traditional to modern thinking and life styles. Primary school leavers, and to some extent secondary leavers as well, emerge as transitional persons, caught between the traditional and modern worlds. Most leavers have become modern in self-concept and aspirations—there is, for example, a positive correlation between educational level and aspirations toward positions in modern sector of economy. However, they are not qualified to fill modern occupational roles. The principal skill acquired in primary school is a low level of literacy, but this is of no use in economies whose manpower needs are for technical, supervisory and managerial skills requiring post-secondary education. The surplus of poorly qualified primary leavers results in a fierce and discouraging competition for the unskilled jobs that do exist. The " transitional " individuals are also often marginal in the sense that they have undergone partial socialization in two widely different socio-cultural spheres—the traditional from which they originate and the modern to which they aspire—and hence do not truly belong to either; the resulting conflict of values and goals causes a psychological state of uncertainty which inhibits their ability to adapt to their environment. Marginal-transitional youths are characteristically non-political in orientation but hostile toward society and inclined to various types of crime. However, positive, supportive relationships with family and traditional community can sometimes perform a stabilizing function.

101. Tibawi, A.L. *Arab education in mandatory Palestine: a study of three decades of British administration.* London, Luzac and Co., 1956. Ch. VIII.

Country. Palestine. *Type of study.* Analysis of field study data.

Educational level. Primary (grades 4 and 5).

Purpose of study. An assessment of education under the mandate in terms of, *inter alia*, the success of the elementary school system in effecting " permanent " literacy among those who completed the minimum period of schooling.

Source of data/procedure. (i) In 1932 the Mandatory Department of Education administered standardized achievement tests in language [1] and arithmetic to 902 males (who had attended primary school during the Mandate or the Ottoman period) in 54 villages. (ii) In 1942-43, the present author gave the language portion of the 1932 tests to 340 persons all having four or five years of primary schooling. There were 300 males from 10 areas chosen to represent differing levels of social development (nomad, rural and urban), and 40 females from the urban areas of Jaffa and Majdal.

Findings

(a) *The 1932 sample.* (i) Among 740 men who had obtained an average of 5.1 years of education under the Mandate 24 per cent failed in Arabic and 18 per cent failed in arithmetic; (ii) of 162 having an average of 4.9 years of schooling under the Ottomans, 53 per cent failed in Arabic and 34 per cent in arithmetic.

(b) *The 1942-43 sample.* (i) Test results among the male portion of the sample indicated that permanence of literacy was very much a function of the social environment of the individual after leaving school; where circumstances afforded no opportunities for using his skills, a man soon lapsed into illiteracy. For example, a Bedouin boy occupied in tending cattle and having no access to printed material had become totally illiterate only three years after completing four years of primary school. (ii) Achievement of literacy with any chance of retention seemed to require a minimum of five years of schooling with suitable accommodations and equipment and competent teaching staff. In backward areas, even five years was insufficient. (iii) The entire group of 40 girls (half of whom had four years' and half five years' education) had lost their literacy skills within 5-11 years after finishing school. This lapse occurred regardless of the apparent advantages of an urban environment and despite the fact that all 40 were in occupations expected to promote literacy (dressmaking, home management, domestic service, etc.)

102. Wallerstein, I. *The road to independence: Ghana and the Ivory Coast.* Paris, Mouton & Co., 1964.

Country. Ghana and Ivory Coast. *Date.* 1956-57. *Type of study.* Analysis of field study data.

Educational level. Incomplete primary through university.

Source of data/procedure. A study of a non-random sample of 204 leaders of voluntary associations (political, professional, social, etc.) in Ghana and the Ivory Coast. The lists of voluntary organizations were compiled for Accra and Abidjan, then stratified by type and level (national, local, etc). In each city, a sample was selected comprising one-half of every variety of organization and interviews conducted with one leader per group (usually the president or secretary). Educational attainment of respondents was correlated with occupation, aspirations and political attitudes.

Findings

(i) Educational level was closely correlated with occupation:

	Educational level		
Occupation category	*elementary or less*	*secondary*	*university*
	%	%	%
Trader and seller, artisan	31.9	6.5	3.7
Junior civil servant	38.9	23.9	3.7
Senior civil servant, businessman, professional, teacher	29.2	69.6	92.6

1. Including " assessment of ability to read orally and silently the language commonly used in correspondence, to understand the material read and to convey it in writing ".

(ii) Schooling was somewhat correlated with occupational aspirations for some, but high aspirations were common both among those with elementary education or less and those with secondary or higher. (iii) Educational level appeared inversely related to support of the majority party:

	Elementary or less	*Secondary or more*
	%	%
Supported majority party	71.6	50.5
Supported opposition or were neutral	28.4	49.5

103. Yaukey, David. *Fertility differences in a modernizing country: a survey of Lebanese couples.* Princeton, Princeton University Press, 1961.

Country. Lebanon. *Date.* 1959. *Type of study.* Analysis of field study data.

Educational level. Primary, secondary, university (0 to 11 or more years schooling).

Purpose of study. To analyse relationships between social background characteristics (religion, education [1] and rural/urban residence); fertility rates; and relevant attitudes and practices.

Source of data/procedure. A cross-sectional sample of 901 Lebanese women. The procedure comprised: (i) interviews with all eligible women (i.e. those who were Lebanese nationals, married only once, and married for over 5 years) within small areas (in Beirut and two isolated villages) purposively selected to produce a sample representing all possible combinations of the background variables; (ii) elimination of educated village couples (either member having received an elementary certificate) on the basis of their "marginality" to the main distribution of the sample—the remaining cases fell into the three categories of rural uneducated, city uneducated and city educated; (iii) information on fertility rates, conception control and feelings about ideal family size, which was correlated with social background data.

Findings

(i) Uneducated Moslem women from both rural and urban areas had high fertility rates while the urban educated women had moderate rates; the uneducated rural Christian women also had high fertility rates but both the uneducated and educated women from urban areas had low rates. (ii) Of 648 women, only 59 per cent would "offer specific advice to a close friend on family size" — 90 per cent of educated city women expressed willingness to do so (irrespective of religious affiliation) compared with approximately 70 per cent of uneducated city women and 30 per cent of village uneducated. Among those willing to advise, however, the number of children suggested was not affected by educational level. (iii) The likelihood of inducing abortions and/or ever using any method of conception control was considerably greater among educated women (the comparison was possible only among city women due to lack of data on rural educated women.)

Conclusions

In the Lebanon, the western-oriented Christians tend to be considerably more advanced in the transition from traditionalism to modernism than Moslems—it is this fact that accounts for the differential effect of education (and of residence) on fertility within the two groups.

104. Carnoy, Martin. Education in Latin America: an empirical approach. In: *Viewpoints on education and social change in Latin America.* Lawrence, University of Kansas Center of Latin American Studies, 1965. (Occasional publications no. 5)

Country. Mexico. *Date.* 1962-63. *Type of study.* Analysis of field study data.

Educational level. Primary through university.

1. A woman's educational status being defined as the highest level of schooling attained either by the woman herself or by her husband.

Source of data/procedure. A non-random cross-sectional sample of 4,000 urban male wage-earners in three Mexican cities: Mexico City, Puebla and Monterrey. Fifty establishments of work and all sectors of the urban economy were represented. Earnings were analysed by age, educational attainment, city and industry where worker was employed and father's occupation, and the private rate of return was computed for various levels of schooling.

Findings

(i) Even small increases in amount of schooling raised income considerably. For example, the years of schooling (without other variables) in relation to the average monthly earnings of 27-year-olds was: 0-2 years, 556 pesos; 3-5 years, 759 pesos; 6 years, 919 pesos; 7-9 years, 1,286 pesos; 10-12 years, 1,739 pesos. Among wage-earners having finished a given level of schooling, manipulation of the variable of father's occupation had no significant effect on the income stream. (ii) Private rate of return to educational expenditures of students and their families was high at all levels of schooling, particularly the last two primary grades:

Return per annum %	*Investment in years of schooling*
21 [1]	2-4
49	5-6
36	7-8
17	9-11

Correction for effect of other variables indicated that the rate of return was not significantly affected by variation in father's occupation; however, additional correction for industry and city worked in and whether studying while working did lower rates of return on both primary and secondary schooling.

Conclusions

Even taking into account income foregone, and the effects of certain variables such as occupational choice, keeping a child in school is an excellent investment. It deserves to be supported by, *inter alia*, making educational investment capital available to families through long-term loans and subsidies.

105 (48). Consejo federal de inversiones. *La deserción escolar en la Argentina* [School wastage in Argentina]. Buenos Aires, 1964.

See *Antecedents* entry for description of study.

It is suggested that persons who fail to complete the primary cycle not only cannot continue their formal education, but are also unable to benefit from on-the-job training which provides technical knowledge crucial to greater productivity. Such on-the-job training is obviously most necessary in the industrial sector; thus dropping out has its most powerful negative effect on the urban/industrial labour force.

106 (50). Kahl, Joseph A. *The measurement of modernism: a study of values in Brazil and Mexico.* Austin, University of Texas Press, 1968.

Country. Brazil, Mexico. *Date.* 1960 (Brazil); 1963 (Mexico). *Type of study.* Analysis of field study data.

Educational level. Primary, secondary and post-secondary.

Purpose of study. To clarify the process of transition from traditionalism to modernism. Within this context, education is identified as a key-sorting mechanism in modern societies and an intensive exploration is made of its relationships to other indicators of socio-economic status and to various values and attitudes.

1. Carnoy points out that the heaviest dropout in Latin American primary schools occurs during 3rd and 4th years. It is interesting to note how much lower—relatively—the rate of return is for these years.

Source of data. A non-longitudinal, cross-cultural study based upon: (i) questionnaires (including specially developed value scales as well as standard questions) administered to quota samples (see *Procedure*) comprising 740 Mexican workers and 627 Brazilian workers, (ii) supplementary qualitative material derived from tape-recorded free interviews with some 25 men in each country.

Procedure. Place of residence and occupational level were the principal criteria governing the distribution of the samples within each country. (i) In order to represent two well separated points on the traditionalism-modernism axis, two kinds of communities were chosen—capital cities and provincial towns of 5,000-10,000 people. (ii) Within each city or town, firms were selected to represent a wide range of enterprises (from small office establishments to large, modern automobile plants). (iii) Within each establishment, selection was confined to men aged 25-49, in order to concentrate on the peak years of occupational career. (iv) Respondents were chosen to represent most grades of skill and income [1] within both white-collar and non-white-collar categories.

Findings

(a) *Education, income and occupation.* (i) In both Brazil and Mexico, a linear relationship was evident between education and income:

Education	*Education and income ratios* [2]	
	Brazil	*Mexico*
Post-secondary	2.7	2.6
Complete secondary	2.3	2.2
Incomplete secondary	2.1	2.0
Complete primary	1.7	1.7
Incomplete primary	1.4	1.3

A further breakdown of income-education data by place of residence revealed some variations. Of particular interest, in Brazilian provincial towns, there was no income differential between the incomplete and complete primary levels.

(ii) A close examination of the education-occupation correlation indicated that the relationship was most reliable at the extremes of the status hierarchy and considerably less so in the middle. Thus among 172 Mexicans having complete secondary or some post-secondary education, all but 31 were in white-collar jobs; at the other end of the scale, of 249 having only incomplete primary schooling, all but 10 were manual workers. On the other hand occupational distribution was much wider among those at the middle educational levels:

	Occupational group [3]						
Education	*A*	*B*	*C*	*D*	*E*	*F*	*Total*
Complete primary	40	57	8	28	22	4	159
Incomplete secondary	16	36	25	40	25	18	160

(iii) Data for both countries appeared to suggest that the full effect of education on career only manifested itself over a period of time—and that its influence exceeded that of on-the-job experience. The following shows the correlations of education, first job and current job:

	Brazil	*Mexico*
Education and first job	0.60	0.56
Education and current occupation	0.72	0.65
First job and current occupation	0.61	0.53

1. Peasants and men at the very bottom and top of educational and occupational hierarchy were excluded as being too different in their ways of life to fit into the research design.

2. Monthly income expressed as a multiple of the average earnings of unskilled workers in provincial towns.

3. A = unskilled or semi-skilled manual; B = skilled manual; C = foremen; D = clerks or salesmen; E = supervisors with fewer than 5 subordinates; F = executives with more than 5 subordinates.

Half the men with primary education starting work with white-collar jobs ended up in manual occupations; however, less than 5 per cent of those with secondary education who started with white-collar jobs lost them.

(b) *Education and political ideology.* Political radicalism (here defined as emphasis on socialism and nationalism) showed a negative and linear relationship to educational level (correlation—0.25). Thus, in both countries, primary school men tended to be radical and secondary school men conservative.

(c) *Education and job and life satisfaction.* Job satisfaction did not vary by broad educational strata (primary against secondary) but by income level within those strata. Low income relative to educational attainment resulted in discontentment. Life satisfaction (in Mexico only) was based on a scale which measured the extent to which a man felt life had been good to him in comparison with others. It was higher among men with secondary education, with one significant exception: those in the lower-middle income group scored lower on life satisfaction (2.4) than primary school men in the upper-middle income group (2.7).

(d) *Ideal family size by educational level* (Mexico only). The relationship between the number of years of education completed and the ideal family size was as follows: 1-3 years—4.2; 4-5—3.9; 6—3.8; 7-9—3.7; 10-11—3.4; 12-13—3.4.

(e) *Education and modernism.* Correlation of " modernism " scores—high modernism manifested by activism (as opposed to fatalism), individualism, preference for urban life, low stratification of life chances, low integration with relatives, etc.—and amount of education pointed up the following patterns. (i) In both countries, men who had reached secondary school were characteristically modern in outlook—it made little difference whether they had had partial secondary, complete secondary or post-secondary schooling. (ii) Modernism increased with amount of education. However, the educational level at which the sharpest upward difference occurred varied by the respondents residence. Among men in metropolitan areas, the critical step was from incomplete to complete primary schooling. In provincial areas, a comparable heightening of modernism did not occur until the transition from primary to secondary—thus reflecting the relative tenacity of traditionalism in provincial regions.

107. Salas S., Irma; Saavedra E., Enrique. *La educación en una comuna de Santiago* [Education in a commune of Santiago]. Primera parte: La comuna. Santiago de Chile, Universidad de Chile, Instituto de educación, 1962.

Country. Chile. *Date.* 1958-ongoing. *Type of study.* Analysis of aggregate and field study data.

Educational level. Primary through university.

Purpose of study. A four-part survey of the San Miguel district of Santiago aimed at description, evaluation and eventual improvement of its education system.

Source of data. (i) Ministry of Education, National Bureau of Census and Statistics, and Health Centres, etc.; (ii) information collected from schools and through interviews in San Miguel.

Findings

(i) The educational level of San Miguel was one of the lowest in metropolitan Santiago: 82 per cent of the population had only a primary school education or less; 19 per cent had no schooling whatsoever. Associated with this educational deficiency was a generally poor standard of living. (ii) The under-educated labour force of San Miguel had only limited access to metropolitan area jobs requiring higher levels of schooling; its members

therefore tended to be heavily concentrated in occupations (such as industry and commerce) which made fewer educational demands and were usually badly paid. (iii) Income and education were directly related:

Years of schooling	*Average monthly income* $	*Percentage increase (base: $16.967)*
None	16.967	—
1-3	22.330	32
4-6	28.112	66
7-9	34.136	101
10-12	68.185	302
13 -	86.300	409

Conclusions

The situation in San Miguel, then, was one of complex circular causation in which low educational attainment led mainly to inferior jobs (mostly in secondary sector) yielding low income; inadequate earnings resulted in poor living conditions which in turn were not conducive to improving school persistence and performance. The destruction of this vicious pattern could not be accomplished without a transformation of San Miguel's education system.

108. Peru. Servicio del empleo y recursos humanos. Centro de investigaciones sociales por muestro. *Características socioeconómicas de la población de la ciudad de Arequipa.* Vol. 1: Encuesta de hogares [Socio-economic characteristics of the population of Arequipa. Vol. I: Enquiry in the homes]. Lima, 1966.

Country. Peru. *Date.* 1965. *Type of study.* Analysis of field study data.

Educational level. Primary through university.

Source of data/procedure. The entire metropolitan area of Arequipa was divided into 681 primary units containing approximately 50,000 dwellings. From these a random sample was drawn in two stages (using a rate of selection of 1/80) yielding 637 dwellings which comprised 1,817 persons over 12 years old. A questionnaire was successfully administered to 82 per cent of the sample, i.e., 1,486 persons. Results were coded and tabulated to produce a socio-economic profile of the population.

Findings

(a) *Education and income.* Results consistently indicated a strong and positive education-income correlation.

Level of schooling	*Median monthly income* (in soles) *males*	*females*
None	750	300
Incomplete primary	850 [1]	300 [1]
Complete primary	1400	500
Incomplete secondary	1400	750
Complete secondary	2650	1850
Incomplete/complete higher	4350	1850

(b) *Education and employment/unemployment.* As level of education rose, incidence of under-employment declined. No comparable relationship manifested itself between education and unemployment. The rate of unemployment was as high among those with both complete and incomplete secondary schooling as among persons with no schooling at all.

(c) *Education and emigration.* Plans to emigrate from Arequipa were somewhat more common among persons having more education.

1. These figures indicate that the person who drops out before completing the primary cycle can expect little or no financial return on his education.

(d) *Education and occupational mobility.* Occupational mobility (rated as high upward, moderate upward, none, and downward) was calculated for 334 heads of household by comparing their occupations with those of their fathers. Among those categorized as having high upward and moderate upward mobility, the greatest percentage (40 and 72 per cent respectively) had only primary schooling. This was interpreted as indicating that a high level of education was not a prerequisite for upward mobility.

(e) *Education and educational aspirations for children.* The amount of education desired for children, both male and female, increased directly with the educational level attained by the parent. However, educational aspirations for sons were consistently higher, irrespective of parent's schooling.

(f) *Satisfaction with amount of schooling possessed.* Education appeared to be highly regarded among people in all educational groups with the great majority indicating a desire to have reached at least one level higher than they actually had. For instance: (i) among those with no schooling, not one reported satisfaction with his status—67 per cent would like to have had primary and 33 per cent secondary schooling[1]; (ii) among persons with primary education, only 14 per cent were contented with the amount of education received and 53 per cent wished for secondary and 20 per cent for higher education; (iii) of those who had been to secondary school, 19 per cent felt satisfied, 26 per cent indicated a desire to have more secondary education and 55 per cent would have liked to have higher education; (iv) 54 per cent of those who had had higher education expressed themselves as satisfied, the rest would have preferred more higher education.

109. Shoup, Carl S. *The fiscal system of Venezuela.* Baltimore, Johns Hopkins Press, 1959.

Country. Venezuela. *Date.* 1958-59. *Type of study.* Analysis of aggregate data.

Educational level. See below.

Source of data. Report of the Commission to Study the Fiscal System of Venezuela.

Findings

Rate of return to education in terms of individual earning power:

Level of education	*Age period*	*Average annual earnings* (Bolivars)
Illiterate		
Farm labourer	13-18	1,000
	19-65	1,500
Urban labourer	13-22	2,500
	23-65	3,750
Primary school	13-22	5,000
	23-65	7,500
Secondary school	18-32	12,000
	33-65	18,000
University	22-35	30,000
	36-50	45,000
	51-65	58,000

110. Gadgil, D.R. Report of investigation into the problem of lapse into illiteracy in the Satara District. In: *Primary education in Satara District: report of two investigations.* Poona, Gokhale Institute of Politics and Economics, 1955.

Country. India. *Date.* 1941-43. *Type of study.* Analysis of field study data.

Educational level. Primary (grades 2-4).

Purpose of study. To investigate the "durability of results" of the primary school system, as measured by retention of literacy among ex-pupils who had been out of school from 5 to 30 years.

1. Here, as throughout much of the report, no distinction is made between the complete cycle and any part thereof.

Source of data/procedure. (i) A preliminary list of former students who had left school between 1911 and 1936 was drawn up from the registers of district schools. (ii) Through the assistance of local headmasters, 2,678 such persons were located. Information on their school careers was collected from school registers and from the individuals themselves. (iii) Subjects were tested for literacy retention and classified as literate, semi-literate or illiterate; their test performance was analysed in relation to amount of education completed and other factors. [1]

Findings

The results indicated a strong relationship between the tendency to lapse into illiteracy (or semi-literacy) and the level of schooling received. Thus:

Educational level [2] *at time of leaving school*	*Literate* %	*Semi-literate* %	*Illiterate* %
Primary 2	66.9	17.5	15.6
Primary 3	87.8	8.2	4.0
Primary 4	96.9	2.0	1.1
Primary 5 pass	99.6	0.4	

Even more important than the extent of lapse into illiteracy and semi-literacy was the pervasive non-use of skills regardless of educational level attained. In the majority of cases reading and writing habits were not developed, and thus, although there was no actual lapse into illiteracy, the educational effort was just as effectively wasted.

Conclusions

At the least, completion of 4 years of education is necessary to ensure life-long retention of literacy.

111 (64). Philippines. Bureau of Public Schools. *Survey of dropouts in elementary schools, a joint project of the National Economic Council and the Bureau of Public Schools.* Manila, n.d. [3]

See *Antecedents* entry for description of study.

Findings

Of 16,183 dropouts who had been out of school from 1 to 4 years: 47 per cent were employed at home; 34 per cent had no work of any kind; 11 per cent were self-employed; 8 per cent held regular jobs. The majority of the employed worked only on a part-time basis, and the largest proportion were engaged in unskilled or blind-alley occupations; 92 per cent received less than the lowest basic wage.

112. Schuman, Howard; Inkeles, Alex; Smith, David H. Some social psychological effects and non-effects of literacy in a new nation. *Economic development and cultural change* (Chicago), vol. 16, no. 1, 1967.

Country. East Pakistan. *Type of study.* Analysis of field study data.

Educational level. Primary.

Purpose of study. To develop a more differentiated view of the way in which literacy is associated—and not associated—with social psychological characteristics relevant to participation in economic and political development "at the level of the common man".

1. Literacy defined as "ability to read printed matter with understanding; to write matter dictated so as to convey to a reader what had been dictated". Semi-literacy defined as retention of reading skill only.

2. Understood as being *in* a giving level *without* having completed it—except in the case of "Primary IV pass" which means successful completion of the last year of the lower primary cycle.

3. Abstracted from summary in *Bulletin of the Unesco Regional Office for Education in Asia* (Bangkok), vol. 1, no. 2, March 1967.

Source of data. Lengthy structured interviews with 562 literate and illiterate males from two samples: (i) 385 urban factory workers (all of rural origins) selected by modified random sampling[1] from 46 factories providing a cross-section of industry in the country; (ii) 177 rural cultivators selected by modified quota method[2] from the same general rural areas where the factory workers originated.

Procedure. During the interviews a questionnaire eliciting extensive psychological data was administered to all the subjects; respondents claiming literacy were given a functional literacy test on which they were scored from 1 to 4 on their reading of a short newspaper-level passage; the relationship of measured literacy to level of education was tested by means of product-moment correlation; questionnaire responses of literates and illiterates were contrasted within each occupational setting (rural and urban-factory) in order to separate the effects of literacy from those of occupational category and urbanization.

Findings

(a) *Literacy and educational level.* Product-moment correlations between literacy ratings and reported years of schooling were 0.82 in the rural sample and 0.85 in the factory sample—indicating thereby that degree of literacy was almost identical with amount of primary education.

(b) *Effects and non-effects of literacy.* (i) Irrespective of occupational setting, literacy was positively correlated (at 0.02 or 0.01 level) with: level of political identity, i.e. a man's ability to think of himself primarily as a member of the new political state (as a Pakistani rather than as a man of village "x" or "y"); aspirations for post-high school education for son; a man's willingness to consider innovation in agriculture, i.e. to encourage his son to use new methods of cultivation. (ii) Literacy had a minimal effect upon: respondents' feelings as to "whether an increase in profits resulting from harder work on their part would go mostly to themselves or mostly to others"; willingness/unwillingness to move 1,000 miles to West Pakistan for a job that would double present income; ability to recognize opinion-diversity among peers. (However, responses to each of these items did differ significantly by occupational setting.) (iii) Literacy and occupational setting had independent and approximately equal positive correlations with: frequency of radio listening; ability to recognize a camera; the belief that man will "some day understand the causes of floods, droughts and epidemics".[3] (iv) Neither literacy nor occupational setting had any independent effect upon: attitudes toward family planning; the belief that the more material possessions a man has, the happier he is. It was only in conjunction (i.e. among urban literates) that these two variables produced a significant (0.02 level) increase in receptivity to the idea of birth control and a marked drop in materialism—this latter was completely unanticipated.

Conclusions

Literacy does not appear to completely pervade and shape a man's entire view of the world; its principal sphere of influence is the symbolic world of ideas, information and persuasion where vicarious and abstract experience is especially meaningful. Literacy specifically, and education more generally, are most likely to change attitudes which depend relatively little on an individual's concrete social situation.

1. Workers of non-rural origins were screened out and "more educated" men (having 4 to 8 years schooling) were deliberately over-sampled.

2. Also over-representing the more educated.

3. This last being construed as a response to technological change.

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